AMERICAN ANNALS OF THE DEAF

Official Organ

Conference of Executives of American Schools for the Deaf
Convention of American Instructors of the Deaf

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Executive Committee of the Conference

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The Conference of Executives of American Schools for the Deaf, originally the Conference of Superintendents and Principals of American Schools for the Deaf, was founded in 1868 and subsequently incorporated under the laws of the State of Maryland in 1931. The Conference is an organization of the executive heads of schools for the deaf in the United States and Canada, and has for its object "to promote the management and operation of schools for the deaf along the broadest and most efficient lines and to further and promote the general welfare of the deaf."

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The Convention of American Instructors of the Deaf, founded in 1850 and incorporated by act of Congress in 1897, is an organization of educators of the deaf in the United States and Canada with the general object of "promotion of the education of the deaf on the broadest, most advanced, and practical lines," and for that purpose "to secure the harmonious union, in one organization, of all persons actually engaged in educating the deaf in America."

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AMERICAN ANNALS OF THE DEAF

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Retirement of Editor of the ANNALS

HAVING served as editor of the ANNALS for the past twenty-three years, we now feel it advisable to turn over to other hands the affairs of that office. This step is made necessary by the increasing burden of other duties.

These twenty-three years, with a previous year of apprenticeship as assistant editor, have been for us a period of activity of absorbing interest and we leave our duties with great personal regret.

A survey of the past quarter century in education of the deaf indicates great strides against a background of great travail. Depression and war have meant a heavy and retarding influence, but nonetheless there has been a marked awakening of the public conscience in the cause of the deaf, methods of instruction have made pronounced progress, new fields of school interest and activity have been opened up, psychology and research have made positive contribution, and there has been a clear-cut crystallizing of a professional status for teachers of the deaf. In all of these fields bearing on the welfare of the deaf the ANNALS has been a willing, eager proponent.

A statement of guiding purpose has the effect of an instrument charting one's course. When in 1920 we took over the task of the editorship, we declared simply "There is no new policy to announce. It shall be the constant endeavor of the new director of the ANNALS to maintain the same standard of efficiency that Dr. Fay set and, for full half a century, so faithfully served. We can only hope these were not vain words.

The editor of the ANNALS acts under direction of its executive committee. It has been our good fortune that the members of the executive committee, distinguished educators of the deaf, have at all times lent considerate and cooperative support. The several succeeding chairmen during the period of our service, Dr. J. W. Jones, Dr. Percival Hall, Dr. Ignatius Bjorlee, have by their high-minded interest reflected a type of leadership that has helped make of the ANNALS the bulwark we think it is.

To the patrons of the ANNALS, to all who have helped in bringing each issue together, to our very efficient printers, to the familiar blue covers of the "Official Organ of the Conference of Executives of American Schools for the Deaf and of the Convention of American Instructors of the Deaf," we bid an affectionate farewell.

IRVING S. FUSFELD

Dr. Bjorlee Assumes Temporary Editorship

THE resignation of Prof. Irving S. Fusfeld as editor of the AMERICAN ANNALS OF THE DEAF will doubtless come as a surprise to ANNALS readers. For more than a year Professor Fusfeld has asked to be relieved of these duties and it was only through the persuasion of Dr. Percival Hall, as president of the Conference of Executives of American Schools for the Deaf, and myself as chairman of the Executive Committee, that he was induced to remain in that capacity throughout the school year.

The wish of Professor Fusfeld to retire was voiced prior to the naming of two associate editors and it was hoped that this arrangement might solve the problem. Failing to do so, it was with deep regret that the resignation was finally accepted.

Professor Fusfeld has rendered invaluable service to the profession. He has given unstintingly of his time and his scholarly attainments toward editing a magazine that savors of permanency and has historic value, while at the same time

chronicling important events of interest to teachers and others interested in the welfare of the deaf. Recognition of Professor Fusfeld's services will appear in an early issue of the ANNALS.

To find a successor for Doctor Fay and Professor Fusfeld, who for approximately 50 and 25 years respectively, have edited the ANNALS, is one of the most important tasks confronting the Conference. I have accepted the editorship for the current year with the understanding that Dr. Powrie V. Doctor and Dr. Elizabeth Peet will continue as associate editors and with the further understanding that I shall be released as soon as such appointment can be made. Because of its importance, the matter should receive thorough consideration and such recommendation as is made by the Executive Committee will be placed before the Conference for ratification.

IGNATIUS BJORLEE
Superintendent, Maryland State School for the Deaf
Frederick, Maryland

Post-War Employment of the Deaf

GEORGE LAVOS, M.A.
Guidance Director, Michigan School, Flint, Michigan

NO ONE will question the fact that the rolls of the deaf employed in industry are steadily mounting. From all sources come reports of deaf men and women finding their places in the program of production for victory. Newspapers of schools carry longer and longer reports of placements in the aircraft industry, the tank industry, the rubber industry, and so forth. Reports of the various state vocational rehabilitation services increasingly indicate a greater number of rehabilitations into war production. Private and public employment agencies announce increasing placements of the handicapped, including the deaf. Manufacturers in their periodicals report "experiments" in the successful use of deaf and other handicapped persons. Our popular periodicals carry accounts of "rehabilitation clinics" designed to find new manpower for the factories from the ranks of the physically handicapped.

No data are available comparing placement records of the present period with that of the first World War. Certainly our schools and other agencies are better geared to serve the demands of employers for manpower. Undoubtedly our attempts at public enlightenment are bearing fruit. Without any question the deaf are just as eager to serve their country as workers as they were before. We can forget comparisons in the light of the fact that the deaf are accepted, almost without question, as capable workers at present.

Probably lurking in the background of the minds of those who assist the deaf into war jobs, or those who know of deaf persons finding their own jobs, or the deaf themselves is the question: What will happen after the war? Fundamentally this is not the question of whether we shall have full employment in the United States after the war, it is not whether we shall have production to meet pent-up consumer demands, or whether we shall see the growth of new indus-

tries.[1] These questions are for the economists, the statesmen, and the industrialists to answer. We who work with the deaf have our own questions to ask and our own ways to seek answers to them.

Our fundamental question is: Will the present gains in breaking down objections to hiring the deaf be maintained after the war? To present an answer to this question, an answer limited by our present knowledge, misguided by our fears, and inflated by our hopes, we should analyze post-war employment for the deaf and for other handicapped groups.

Post-War Employment

Just as there was a period of conversion to war production, it will be necessary to have a conversion to peace production. Pleasure cars, radios, lipstick, silk stockings cannot be made with the same dies, patterns, and tools which produced war material. Assuredly steps will be taken to prevent the post-war conversion from developing into a depression by staggering plant conversion periods, contracting for post-war armaments, governmental financing of the retooling of industry, dismissal wages, retention of a standing army, industrial preparatory steps by manufacturers' associations. *These steps and the many others which will be taken will not obviate the need for each plant to go individually through a conversion period.* The government, private industry, the public will take every step to prevent large-scale, simultaneous termination of employment but different segments of the population will be unemployed from time to time as the plant in which it was employed converts to peace-time production. Individual plant shut-downs seem unavoidable although large-scale unemployment can be averted.

This period of temporary unemployment, a period which seems unavoidable for individuals in war production, is very important, for it may mark the exit of numbers of deaf workers from the ranks of the employed. Certainly it is hoped that these conversion periods will mark the exit, from

[1] "From War to Work," *Survey Graphic*, 32:149-243, 1943.

the immediate, post-war labor market, of many of the women, of the older people called from retirement, of young people called from the schools. But we do not want it to mark the exit of the deaf from the ranks of those whom the employers will considerately and impartially weigh for hiring. In fact the theme of these reflections is the steps we can take to prevent their ever entering the post-war labor market.

Coincident with the change-over to peace-time production, patriotic pressures to use all possible manpower will be considerably reduced. Our life-and-death struggle will be over and, just as after any severe emotional experience, there is a let-down in feelings. The enemy without is vanquished; old fears, dislikes, and prejudices reassume their former strengths. Sellers of products will have to shift from a steady government market to a dormant public market. People may not plunge into a buying spree to make up for the wants of three or four rationed years fearing a return of the depression of the '30's.

Not only will the sales market of the manufacturers be in an unsettled condition but the labor market itself in which the deaf will have to compete for jobs with other handicapped and with the physically normal will be in a turmoil. There are several groups who will compete for jobs with the deaf who suffer lay-offs in conversion. The demobilized armed forces will be one. The government will assuredly plan demobilization to coincide with industrial plans; however, plans in the aggregate do not always help the specific individual. Pressure groups among the former soldiers will arise, if past wars are any criterion. Employers feel obligated toward former members of the armed forces not only to re-hire their former workers but to employ others as well. While the government will probably gradually terminate its ordinance production, there will be at any one time many demobilized war workers. Retraining and then employment will be needed for these. There will be the normal increment in the labor market, our present high-school freshmen and sophomores. The workers who migrated from adjacent countries will either have to return or remain and compete with

native Americans for jobs. There may be a residue of women and younger workers who left school, a residue which finds work more attractive than housework or the resumption of studies after the taste of independence through a job. There will be those who have seniority dating from pre-war days.

And finally, the deaf who are being placed now in war work will have to compete with the handicapped-to-come. These future handicapped persons are the disabled members of the armed forces, those disabled at present in industry, those disabled by diseases brought about by the war and its strain, and possibly civilian defense workers permanently injured in air raids. And the regular causes of deafness, of blindness, of crippling conditions are not less. They will continue to contribute their quota. While the deaf have their own liabilities and assets, in the employers' eyes they are often regarded as members of the larger group, the handicapped. This fact of public attitude, not the wishes of the deaf, their true capacities, the ideas of workers serving them, must be remembered. And so it will be necessary for the deaf to compete for jobs with other handicapped people as well as with normal people. Competition with other handicapped will be made even more keen by the fact that many of the latter may have got their defects in the war. "Sorry, but we already have our share of the war disabled" may become a common expression.

In the midst of these forces—retooling, demobilization, refinancing of industry—the deaf will be laid off for conversion periods. Will they, when peace-time production returns, be re-hired in competition with returned soldiers, men with seniority rights of long standing, war disabled, the normal increment in the labor market?

Steps to Take

What are the steps we can take so that the deaf can continue to hold their own in the competitive work after the war? What can we do now to keep the door open after the war?

One.—First our guidance, in whatever form it takes, should concentrate on providing workers for essential civilian

occupations. In the rush for the glamor of working on tanks, guns, and planes the lowly shoe, the grimy underside of a car on a hoist, the loaf of bread in the home-coming shopper's bag, the worn workclothes in the plant locker that need replacement, the dirty dishes in the hospital kitchen must not be forgotten. They need making, repairing, service, care; they are as much a part of war as the bomb sight; maybe not so important singly but in the aggregate they maintain our workers in the war effort. The deaf have worked in these and similar occupations; they should continue.

The importance of essential civilian jobs is well testified to by the recent changes in Selective Service Regulations relative to agricultural workers. Guidance into essential civilian jobs rather than the purely war production job will maintain the flow of services. Surely it is vital to maintain properly the fourteen to fifteen men who are now needed to supply the soldier on the battlefield. By securing and holding essential civilian jobs, the deaf are demonstrating their capacities in jobs which are a normal complement of the every-day working world. The jobs they hold in civilian production do not require any special handling which is sometimes the case with production in connection with the war because of the relatively inexperienced work force. The deaf, too, then may have jobs that will continue through the conversion period into peace-time production without interruption.[2]

Two.—In the definition of vocational guidance, selection of a job objective is the first step. We have discussed the

[2] Manpower needs differ greatly in different parts of the country. In some there are shortages; in others, adequate supplies. Our specific guidance must be tempered by local needs. Where choice exists, counseling should be along the lines of developing skills on jobs that are likely to continue after the war. The fact of possible similarity of duties in the purely war production job and the essential civilian job must be integrated into the guidance program. Schools for the deaf—and especially those with vocational training programs—cover states, not narrow localities. Some parts of the state may be critical areas, others not. Counseling in terms of the community in which the youth is to live is the key. It must be remembered that what is presented here are general principles, not specific recommendations for John or Mary.

desirable type of selection for post-war security. The step which follows closely upon a vocational decision is training for the job selected. How can we in our vocational training help the deaf through conversion to a permanent status in industry?

It is easy today to place the young men and women who leave our schools. The ease of placement may tempt us to send some of our pupils out on jobs comparatively early in their vocational training. Drop-outs of the less successful increase and we do little or nothing to get them back into school, though we know their vocational skills are limited.

Discussing post-war employment in the metal trades Mr. A. F. Hinrichs, chief of the U. S. Bureau of Labor Statistics, states:[3]

> It is in these trades that the largest net shrinkages are to be anticipated in industrial employment. Under these circumstances the man who will be well equipped in the metal-working trades is the journeyman and not the person who has learned to work a drill press or a turret lathe or to perform some simple operation. The single-operation individual will be enormously handicapped.

And we may add doubly handicapped if he is also deaf!

We should not let down the standards of completeness in our shops. Required sequences should still be required. Efforts must be made to hold students to completion of basic training. Up-grading of teachers, of equipment, of curricula, and co-ordination with industry should continue.

We have toyed probably with the idea of adding to our vocational curricula courses in plastics, prefabrication, and the other envisionings of futuristic production. As one commentator puts it: They are "pencil dreams" of post-war products. Pseudo-intellectual newspapers and magazines carry spreads about our post-war world—with the years after the termination of hostilities conveniently excluded, that period which is crucial in the continued employment of the deaf. The first car off the assembly line after peace will be close to a '42 model. The demands will be too great, the tools and gigs too convenient, the public too unprepared by advertising, the servicemen too untutored in new parts and

[3] Hinrichs, A. F., "Labor Supply Problems Affect Post-War Planning," *Occupations*, 21:c41-c45, 1943, citation on page c44.

motors for manufacturers to make any radical departures from earlier patterns. Not only will the products in the immediate post-war world be similar to the '41 and '42 models but the "general pattern of work opportunities will not be widely different in the immediate post-war period from the pattern in 1941 and 1942."[4] Thus we need not fear that the required pattern of vocational training should be changed greatly after the war. Our vocational courses should be strengthened, not changed.

Three.—Several schools are taking an active part in placing graduates and drop-outs. Specialists for the deaf are appearing in the various state vocational rehabilitation services. Some of the state departments of labor have special divisions for the deaf. The focus of their programs is placement, placement in a job in industry or business.

What kind of placements should be made? Where should we seek our openings? We get many calls from employers. We try to fill the more desirable of these calls, the more necessary. Besides wages, hours, stability of company, need for a placement in that particular shop, requests on the part of our clients for jobs, we have three other gauges to use:

1. Is it a job in the war effort? 2. Is it an essential civilian job? 3. And finally, how easily can its production program be converted to peace-time uses? Some plants have not converted their equipment to war production; they have merely changed buyers. Clothiers, canners, medical suppliers and many others merely increased output and changed from public to governmental buyers. Other industries converted by removing all equipment leaving only the walls, the hoists, and the heating system. The differences in the post-war conversion periods are immediately apparent. We should place in those industries with a minimum of conversion to peace-time production. This will lessen the chances of having our deaf people laid off into a labor market crowded with competitors for jobs.

Unionism with its rules on who can hold a job should enter our thinking about placement. If we place into highly union-

[4] Kirkpatrick, F. H., "Realism in Post-War Thinking," *Occupations*, 21:605-07, 1943, citation on page 607.

ized industries, we face the problem of getting the deaf into the unions. At present we do not know of any difficulties but there may be—when jobs are scarce and war pressures removed. Furthermore, seniority rulings mean that the recently hired in a plant are the first discharged and the last recalled.

It may be that the company is only temporarily relaxing its physical standards; in a way the placement is experimental, temporary until a "more desirable" labor is available.

Four.—Our young man or woman, adequately trained as an all-around worker, is safely placed in an essential civilian job. The conversion problems of his plant will be limited. Do the services we can render him for his post-war security cease? Have we done everything?

Follow-up to insure satisfaction to employer and employee is as much a part of our program of insurance for the future as any other service we render. We gain nothing if the youth quits, if the employer fires him within a few days. And assuredly the two principal characters lose. Following up our placement is a necessary policy because a separation of worker and employer is a blow against our war effort, just as much as guidance into a non-essential job. Placements must stick a reasonable time.

Follow-up is not only insurance for the youth we served but also for those who follow. A personal relationship has been established between an employer and a representative of organized effort to place the deaf. This may be helpful in the periods to follow.

And Some Final Steps.—These are some of the services that we can render our deaf youth in following through the vocational guidance steps of deciding upon an occupation, preparing for it, entering upon it, and making progress in it in these war times. They are not the end of our present possibilities for post-war security for the deaf.

If there is ever a time to educate the employing public to the possibilities of the deaf it is *now*. Some of the companies are even getting the jump on us, for a few of the periodicals of manufacturers' associations have carried accounts of the successful use of the handicapped for the

benefit of other members of the associations. A step which we should now take—if we have not already taken it by the time this goes to press—is the development of a definite program of public education. Such a program is advertising or propaganda. It does not contain elements of exaggeration or untruth. It is merely an appeal to reason through facts. Facts about the efficiency of deaf workers should be brought before employers—and kept on their desks in the post-war period. If manufacturers and governments have found that informing the public is an important part of selling themselves, we too can use that means to secure the cause of the deaf.[5]

Within the school we can take steps to improve our products so that they can better sell themselves in the post-war world. Aside from instruction in the basic skills and as many of the broader subjects as possible, there is the meeting of the needs of our pupils for occupational information and for character and personality development. To allow our pupils to leave with their only concept of wages the inflated one of today's industry is to lay the seeds for discontent in the post-war world. If our deaf youth (who were just beginning to master language during the depression and who have had limited opportunities to hear adults discuss jobs in the depression and still less chance to experience joblessness in a family circle because they lived at school) leave our schools without occupational information, we are only preparing the way for disgruntled deaf people after the war. While it is true that the mere presentation of facts about jobs does not guarantee against discontent at future reduction of wages, at least ideas are sowed. With proper cultivation they may become useful to the individual. If we are teaching for thinking, for reasoning, not merely recall, the facts will be used to understand the probable reduction in wages and the changes in other factors in the evaluation

[5] It is willingly admitted that employer prejudice against the deaf is not based on facts about the deaf worker. Its nature has been discussed elsewhere (Lavos, G., "Objections to Hiring the Handicapped," to appear in *Journal of Consulting Psychology*). It is our hope—and one of the hopes we are fighting to realize—that facts can counteract prejudices and lead to more favorable behavior.

of a "good" job. The probable post-war economic imbalances will at least have a link with the facts taught earlier. Facts will enable the youth to interpret properly the forces that will play upon him. His emotional reactions may be altogether improper and unhygienic but until character and personality education reaches a par with fact education not much can be done to prepare our youth for the emotional let-down in the post-war world.

We know today that vocational skills on specific machines and a knowledge of job facts are not enough to insure good workers. They are necessary conditions but not sufficient in themselves to produce efficient workers. Research on the question why people lose jobs shows that jobs are not lost because the workers do not have the necessary vocational skills but because of character and personality defects. A sense of responsibility sufficiently well established to have the worker report on time, work without undue response to interruptions and diversions, leave his job in working order for the next day must be assured. Dependence upon others even for such a little thing as getting up in the morning should be outgrown. A personality that can get along with others is needed on all jobs.

Our modern texts on personality development are replete with specific traits to be developed. Developing them is not only a program of naming and defining them but also living them. To be able to name and describe good habits does not necessarily mean the carry over into living them.

Strengthening education by broadening the base is a step which all can take to prepare deaf youth for today's and tomorrow's labor market. Or should it be worded:—for today's labor market in order that he will not be on tomorrow's?

Educators today know that the gap between school and job is not easily bridged. New habits must be formed, new personal relationships established and skills, developed on certain machines, adapted to later models. The demands are made, therefore, for links between schools and shop. The fact that full-time placement is so easy is no reason to lessen our efforts to establish part-time arrangements with

industry. Just as training for the armed forces is made as realistic as possible today, so too must deaf youth get first-hand experiences in shops. One technique to achieve this and yet keep the youth under supervision (and hence adjustment) is a part-time "apprenticeship" program with industry. We thus develop a better worker for war production and, at the same time, give him the attributes which may lead to his being retained after the war.

Along with this is the need for making plans now for our part in the public-works program which the government may reestablish after the war. If it is found necessary to set up a C.C.C., an N.Y.A., or a W.P.A., should there be discrimination against the deaf? Dr. Bjorlee cites his difficulties in getting the deaf on the rolls of public-works programs.[6] While we do not look forward to such programs nor consider them necessary for the deaf, the fact remains that to hold life and body together, to give needed job experiences, recourse to such agencies may be necessary in the post-war world. Now is the time to lay our plans and, if such agencies are reestablished, to approach them on the status of the deaf in their programs.

Schools for the deaf can help their youth meet tomorrow's problems in the world of work by the education of industry and public agencies and by strengthening within their own walls their programs of education as living and experiencing.

Retracing Our Steps

The United States is diversified and the schools feel the impact of the war differently. Yet the problems of the field agent for the deaf in the South are not basicly different from the problems of the placement secretary for the deaf in the East, those of the training officer for the deaf in the West from those of the interviewer in the North. All these and the several between their fields of work, gear their programs to victory. Without victory in the war many of our special services for the deaf may go. But without security in the post-war world the victory will be an empty one—in

[6] Bjorlee, I., The Deaf in Industry and Their Greatest Handicap, 1943, pp. 8-9.

fact more than merely empty. It will be dangerous to our way of living because of the discontent that may ensue.

While some or all of the ideas suggested may be rejected, the fact remains that now is the time to plan. Needs for war workers and the needs of our deaf youth may demand modification of one dictum or another. It may not be to the best interests of our nation to guide into essential civilian jobs because of a local critical shortage of workers, training periods may have to be curtailed, placement made in a plant that will have to scrap every machine and revamp procedures after the war. But at the same time opportunities may exist to follow one or another of the ideas.

Thinking about our post-war problems and the steps to take now should start now. Workers in the vocational adjustment of the deaf, vocational principals, and superintendents should express their ideas. The organized deaf should be given a chance to express their views. Can we have a common program adapted to meet local needs? Can we start now on the program for the post-war problems of our deaf youth?

Words, Words Everywhere But—

MAX N. MOSSEL, B.A.
Instructor in the Missouri School, Fulton, Missouri

THE platitude that a chain is as strong as its weakest link is a handy reference with regard to language. Forged in links of words conforming to the universal practice in regard to collocation, a sentence is by the rule as clear as its least clear word. Every thought in the form of an imperative sentence is dominated by at least one key word, and by at least two when the sentence is either declarative or interrogative. When a key word is "blacked out" by reason of unfamiliarity, the thought itself is partially or even totally eclipsed. All this sums up to this, too great lack of vocabulary prevents adequate expression of a thought just as it precludes comprehension in reading.

The question now arises as to whether we should teach deaf children practical vocabulary with a view to enriching the ability to express thoughts or with a view to invigorating general reading ability. Or both. Will a course in vocabulary building help in either case? With vicissitudes of learning in mind, we may fail in this undertaking, but this is not the point. We fail more or less every day in our work with deaf children; there has never been 100% success in teaching any subject whatsoever. A vocabulary course will not be 100% effective, nor even 75%, and regardless of the low degree of achievement in such a course, there is no doubt that most children will receive a minimum benefit from it.

There will always be some children more or less superior in language ability, and in this case vocabulary should be taught for an all-round development. On the other hand, a large group of our children[1] can never hope to attain the standard level in language ability in spite of skilful teaching. It, therefore, does not make sense to teach them vocabulary for the express purpose of improving their language. What they need in the main is an understanding of what is said,

[1] These children, although deficient in language, are not necessarily deficient in intelligence. The use of non-language mental tests tends to bear out this view.

written, printed, questioned, requested, and directed. In everyday life they must, whether willing or not, face verbal experience, and the ability to read rather than to write counts much in earning one's "bread and butter" and in getting the most out of life. On the school side, an efficient vocabulary does facilitate the learning of lessons, and it accelerates the progress of a child.

A large vocabulary is generally the hall mark of a capable reader regardless of his ability in language, though it does not always enable him to understand the abstractions and "between-the-lines" expressions. It must be borne in mind that a large vocabulary, if acquired at all by a slow child, does not make him a capable reader, but it will make one having the power and ability to learn a capable reader.

Psychologically speaking, it is easier to recognize than to recall. Most children can recognize words formerly learned but hardly used in higher classes, such as quotient, dividend, and others, but when it comes to naming the answer found by dividing and the number to be divided, a great many of them fall down on it. The ability to recall words depends upon memory which is, or has been, strengthened by repetition and weakened by disuse, and in some cases this ability depends upon sheer memory not to be affected by a long period of disuse. Therefore, it would seem that extensive and systematic vocabulary work should pay bigger dividends than incidental teaching of words from textbooks.

It won't suffice for the teacher to explain new or difficult words that the pupils encounter in textbooks as a means of increasing their small stockpile of words. While this method is fundamentally correct and necessary, it is at best a slow means of accumulating words. Furthermore, it cannot be considered sound pedagogy when seven, eight or nine out of ten words learned in this manner are sooner or later forgotten and become unrecognizable in due time.

In the public schools spelling is taught, and the nature of this study brings hearing children in contact with hundreds of words not ordinarily used in conversation. For want of statistics, it is a fair guess to say that by taking up spelling, these children increase their vocabulary much more than otherwise. Reference to spelling in public schools

only suggests an analogy that vocabulary work should be to deaf children what spelling is to hearing children.

It is true that deaf children take up spelling in most schools, but the area covered in this work and the amount of time spent are practically negligible in proportion to the work done and the time spent in public schools. Most schools for the deaf devote one or two days a week to vocablulary work in connection with reading and language. Yet there has never been any strictly scientific teaching of words from the point of view of the psychological laws of learning except in connection with language work. In view of this fact, we should have a five-days-a-week course in vocabulary building devised to improve comprehension in ordinary reading and, incidentally, language. Since the average deaf child can hardly be expected to have the same language ability as the average hearing child, it might be well to divert some our energy toward improving the "receiving end" rather than the "discharging end." Nothing is proposed here to thrust language work into the background. It may be premature to concur with Pintner,[2] who, in reference to most deaf children said, "Make the learning of language subsidiary and ancillary to making and building and doing. Only for a few should the academic curriculum be followed."

Of all the words in the English language, which of them should be included in the list besides several hundred essential words already taught the first few years? The choice of words should naturally be based on frequency of usage as outlined in any good wordbook such as Thorndike's. But that is not all there is to it. There are many words among the first two thousand that are more difficult for deaf children than perhaps a hundred words from the last two thousand. After all, it is not so much the words themselves as the meanings they convey in sentences. The same word in the form of a transitive verb, an intransitive verb, or other parts of speech gives different meanings. It is thus either a "contextual" or a "polyfunctional" word, or both. A con-

[2] Pintner, R., Eisenson, J., and Stanton, M., The Psychology of the Physically Handicapped, F. S. Crofts and Company, New York, 1941, p. 179.

textual word is one whose meaning varies as other individual words or groups of words are applied with it. "Run" is a contextual verb whose meaning changes as the context changes, as in the following sentences:

A boy runs.
A train runs.
A river runs.
A clock runs.
My nose runs.

A polyfunctional word is one which assumes the character of at least two parts of speech. "Nurse" is a polyfunctional word as it may be used as either a noun or a verb. It is also contextual when it is used as a verb. The word "baby" is polyfunctional but hardly contextual. The question, therefore, is: Are simple polyfunctional and contextual words the bottleneck in reading comprehension? Not long ago one of the classes in the advanced department of a school for the deaf was confronted with the following sentence: "Mary sometimes ran the grocery store for her mother." The word "ran" tripped the children, yet it is classified among the first thousand in Thorndike's word list. There is another most frequently used word, "down," which may be interpreted as an adverb, a preposition, an adjective, a verb—transitive and intransitive, or a noun, and it undoubtedly makes an "excellent" pitfall in reading comprehension.

In order to ascertain the approximate number of polyfunctional words in Thorndike Century Junior Dictionary, fifty pages out of 970, or a bit more than five per cent, were examined. These fifty pages came from ten widely selected samples of five running pages each. The result was a total of 1,185 words excluding abbreviations, and they were classified according to parts of speech and tabulated as follows, though it must be remembered that owing to the fact that a very small portion of the dictionary was sampled the classification cannot be so comprehensive as it would be in a wider sampling.

Based on 24 words per page on the average, the dictionary is computed to contain 23,000 words in round numbers. The table on page 267 shows only approximate numbers of words for different parts of speech.

TABLE I

CLASSIFICATION OF WORDS ACCORDING TO PARTS OF SPEECH

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
Common nouns and essential proper nouns	41	36.0	
	40	43.9	
	41	37.3	
	43	38.7	
	39	32.2	37.19
	64	44.1	
	46	33.1	
	50	42.0	
	35	31.0	
	41	33.6	
Proper and technical nouns	13	11.4	
	9	9.9	
	0	0	
	16	14.4	
	14	11.6	12.03
	20	13.7	
	27	19.4	
	15	12.6	
	17	15.0	
	15	12.3	
Adjectives	25	21.9	
	13	14.3	
	24	21.8	
	10	9.0	
	20	16.5	15.39
	24	16.5	
	22	15.8	
	12	10.1	
	14	12.4	
	19	15.6	
N.—adj.	6	5.2	
	10	11.0	
	5	4.5	
	6	5.4	
	7	5.8	4.37
	5	3.4	
	6	4.3	
	3	2.5	
	0	0	
	2	1.6	
N.—v.t.	6	5.2	
	2	2.2	
	9	8.2	
	4	3.6	
	6	5.0	5.58
	7	4.8	
	7	5.0	
	6	5.0	
	6	5.3	
	14	11.5	

TABLE I—*Continued*

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
N.—v.i.	2	1.8	
	0	0	
	1	.9	
	3	2.7	
	2	1.7	1.65
	6	4.2	
	0	0	
	2	1.8	
	1	.9	
	3	2.5	
N.—v.t.—v.i.	7	6.1	
	3	3.3	
	3	2.7	
	10	9.0	
	12	9.9	7.70
	3	2.1	
	3	2.1	
	13	10.9	
	21	18.6	
	15	12.3	
Transitive verbs	4	3.5	
	1	1.1	
	16	14.5	
	7	6.3	
	0	0	3.92
	3	2.1	
	7	5.0	
	6	5.0	
	1	.9	
	1	.8	
Intransitive verbs	0	0	
	0	0	
	2	1.8	
	0	0	
	1	.8	.94
	5	3.4	
	0	0	
	4	3.4	
	0	0	
	0	0	
V.t.—v.i.	4	3.5	
	4	4.4	
	7	6.4	
	6	5.4	
	5	4.1	4.70
	8	5.5	
	9	6.5	
	6	3.4	
	4	5.3	
	3	2.5	

TABLE I—*Continued*

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
N.—adj.—v.t.	2	1.8	
	1	1.1	
	2	1.8	
	0	0	
	0	0	
	0	0	.88
	0	0	
	3	2.5	
	0	0	
	2	1.6	
Adverbs	2	1.8	
	4	4.4	
	0	0	
	3	2.7	
	4	3.3	2.09
	0	0	
	5	3.6	
	1	.8	
	4	3.5	
	1	.8	
Pronouns	2	1.8	
	0	0	
	0	0	
	0	0	
	0	0	.34
	0	0	
	0	0	
	0	0	
	0	0	
	2	1.6	
N.—v.t.—v.i.—adj.—adv.	0	0	
	1	1.1	
	0	0	
	0	0	
	0	0	.11
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
N.—adj.—adv.	0	0	
	3	3.3	
	0	0	
	0	0	
	4	3.3	.66
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	

TABLE I—*Continued*

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
.t.—v.i.—prep.—conj.	0	0	
	0	0	
	0	0	
	1	.9	
	0	0	.09
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
V.t.—adj.	0	0	
	0	0	
	0	0	
	1	.9	
	0	0	.09
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
Adj.—adv.	0	0	
	0	0	
	0	0	
	1	.9	
	5	4.1	1.02
	0	0	
	1	.9	
	0	0	
	4	3.5	
	1	.8	
Adj.—adv.—v.i.—v.t.	0	0	
	0	0	
	0	0	
	0	0	
	1	.8	.08
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
V.t.—v.i.—adj.	0	0	
	0	0	
	0	0	
	0	0	
	1	.8	.26
	0	0	
	0	0	
	0	0	
	2	1.8	
	0	0	

TABLE I—*Continued*

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
N.—v.t.—v.i.—adj.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.16
	1	.7	
	0	0	
	1	.9	
	0	0	
Adv.—prep.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.29
	3	2.1	
	0	0	
	0	0	
	1	.8	
Prepositions	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.07
	1	.7	
	0	0	
	0	0	
	0	0	
N.—adv.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.07
	1	.7	
	0	0	
	0	0	
	0	0	
Adv.—prep.—adj.—v.t.—v.i.—n.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.09
	0	0	
	0	0	
	1	.9	
	0	0	

TABLE I—*Continued*

Parts of Speech	*Number of Words*	*Per Cent for Each Sample*	*Average Per Cent*
Prep.—conj.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.08
	0	0	
	0	0	
	0	0	
	0	0	
	1	.8	
V.t.—adj.—adv.—n.	0	0	
	0	0	
	0	0	
	0	0	
	0	0	.08
	0	0	
	0	0	
	0	0	
	0	0	
	1	.8	

It is seen from Tables I and II that nouns predominate in the dictionary. If we include all possibly nounal words, the dictionary becomes a veritable collection of nouns. The number of verbs amounts to only a handful when compared with nouns, but if the polyfunctional words involving verbs

TABLE II

DISTRIBUTION OF WORDS ACCORDING TO PARTS OF SPEECH

NOUNS		
Common	8,600	11,400
Proper and technical	2,800	
ADJECTIVES		3,500
VERBS		
Transitive	900	
Intransitive	230	2,230
Transitive-intransitive	1,100	
ADVERBS		500
PRONOUNS		80
PREPOSITIONS		20
POLYFUNCTIONAL WORDS*		5,400

* Conjunctions and other prepositions are absorbed in this group. Some conjunctions are not polyfunctional, and the fact that not even one of this category was caught in the "dragnet" should not make the above figures void.

were "neutralized" so as to make them just verbs, the number is increased to some five thousand words. By the same token, the number of adjectives is somewhat increased, but that of other parts of speech is slightly affected.

Since the teaching of vocabulary is best adapted for adolescent children, that is, those who have about five years of schooling left, it then becomes an impossible task to teach all of the 23,000 words in the dictionary individually in that time.[3] Even if we exclude all technical words and proper nouns (some of which usually make their appearance in geography, history, and science anyway), we would still have some 20,000 words to teach. A great many words already taught will have to be taught again because of their contextual nature. It would seem that the number of words to teach must be limited for effective teaching and learning. A 12,000-word course may be a safe maximum, but it calls for a careful selection of words.

Polyfunctional words should be included in the early phase of the course as they usually comprise most frequently used and familiar words such as oil, house, cup, and the like—all of which, though nouns, may be used as verbs. A list of such words need not be exhaustive—just sufficient so as to give the children an understanding of the principles of using nouns as verbs, and *vice versa.* To avoid the danger of confusion arising in this phase of work, the teacher should stress the usage of words such as "rock," match," top," etc. A child is likely to interpret "She rocked the baby" in the sense of "She stoned the baby" or "to match curtains" in the sense of "to set curtains afire with an applied match."

It should be noted that a large number of words in the dictionary are merely derivatives from primary words such as "assortment" from *assort,* "assumption" and "assumptive" from *assume,* "assurance" from *assure,* etc. If primary words are taken up first, many of their derivatives need no more than superficial teaching. Since most derivatives are traced to verbs, it is profitable to include every possible

[3] Using a dictionary as a textbook is not advisable for the simple reason that words should not be taught alphabetically.

verb in the course. After all, there are only between two and three thousand monofunctional verbs in the dictionary, and by developing cognates from most of them, the vocabulary is doubled or even trebled. Last but not least, a verb is the most important word in a sentence from the grammatical point of view.

There is no short cut in the teaching of contextual words owing to the fact that the shades of meaning depend on the context. Some of them become idiomatic when they are applied with peculiar words, especially with prepositions. The drawback is that they must be laboriously taught if the context is beyond a child's grasp. On the other hand, they are adapted for those having "language sense."

Contextuality is not strictly confined to individual words. Groups of words may be contextual. To quote from Thorndike's dictionary, "make up" means (1) put together, as, to make up cloth into a dress. (2) arrange, set up, as, to make up a page of type. (3) invent, as, to make up a story. (4) put paint, powder, etc., on the face. (5) become friends after a quarrel. (6) give or do in place of, as to make up for lost time. (7) decide, as, to make up one's mind. "Meet one halfway," properly idiomatic, is actually contextual as the following story illustrates. A pupil was called to the superintendent's office for reprimand for being insubordinate to his teacher. He was urged to be on better terms with the teacher, and it was suggested that "if you meet him halfway he will do likewise"; he left the office. The next morning he failed to report for the opening of school, and after a brief search, he was located pacing up and down, and walking in circles in great perplexity. He had waited in vain for the teacher to meet him *at a point halfway from the school.*

To repeat, a vocabulary should be taught to the end that it may improve comprehension in reading. If a child has a propensity for using newly acquired words that go well in sentences, he should be encouraged, but he should not be allowed to reach the point where wordiness begins to develop. He should be taught that a high-sounding word, like a Sunday suit, should be used on proper occasion, not all the time.

The Use of Individual Hearing Aids in a Residential School for the Deaf[1]

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MULTIPLE hearing aids have been used in schools for the deaf approximately fifteen years. Although the effectiveness of these instruments has been questioned, their value has been deliberately confirmed. However, results such as the acceleration of speech development and educational attainment have not been achieved to the extent expected when these instruments came into vogue. The somewhat limited accomplishments might be explained in part by the fact that experimentally controlled acoustic programs, which would indicate the most effective procedures for acoustic classes, are practically non-existent. Furthermore, the child receives auditory stimulation only while in the classroom which is a comparatively short time, even though the hearing aid is used during the entire school day.

In an attempt to determine whether individual hearing aids might be more adequate for some children, the New Jersey School for the Deaf purchased twelve such hearing aids for experimental purposes. The children selected to use these instruments are now wearing them for the ninth month. They wear the instruments all day except during the time spent in physical education classes. All twelve children used the hearing aids during the two months of summer vacation.

Probably the most prominent consideration in such a program is whether speech and educational achievement can be significantly speeded up by the use of individual hearing aids. Another consideration of practical consequence is, What is the decibel loss or per cent loss for speech beyond which a child who has been severely deaf from infancy cannot learn to discriminate and comprehend speech by the use of individual hearing aids?

[1] The writer is indebted to Superintendent C. M. Jochem and to the principals and teachers of the New Jersey School for the Deaf for their assistance in this study.

Several additional problems are involved, such as: What per cent of the population of residential schools for the deaf can profit by the use of individual aids?; At what chronological age levels can sound patterns, including comprehension of speech, be most readily established?; Do certain diseases which cause hearing defects also cause other exigencies which increase the difficulty in establishing a sound pattern and ability to comprehend speech sounds?, and, What characteristics of the audiogram tend to insure accuracy of prediction of successful developmental ability to discriminate speech sounds?

These problems derive primarily from work with the child who has not acquired normal speech prior to entering a school for the deaf. Obviously, the child who has a slight hearing defect has only slight deterioration of speech and the difficulty of establishing a sound pattern is greatly minimized. In the present study we do not claim to solve or even present data relative to all of these problems. Much more experimentation and study are necessary.

Description of Cases

Even though the number of cases is very limited, children of contrastive chronological ages and presenting various types of audiograms were selected to wear the instruments. The chronological age, per cent hearing loss for speech on the fitted ear without the hearing aid, per cent loss for speech with the hearing aid, and the decrease in percentage of loss, are presented in Table I.

The youngest pupil was eight years and two months of age at the inauguration of the study and the oldest pupil was seventeen years and ten months of age; the age range being nine years and eight months. Pupils I, II, and III were selected from the primary school; pupils IV, V, VI, VII and VIII from the intermediate school, and pupils IX, X, XI, and XII from the advanced school. Only pupils X and XI had speech and language prior to entering the school for the deaf.

In Table I we find the greatest per cent loss for speech is 90.2 and the least severe loss is 30.0 per cent. The greatest

TABLE I

PER CENT LOSS FOR SPEECH* ON FITTED EAR WITH AND WITHOUT HEARING AID AND DECREASE IN PERCENTAGE OF LOSS

Pupil No.	*C.A.*	*% Loss without Aid*	*% Loss with Aid*	*Decrease in Percentage of Loss*
I	8–2	87.8	9.1	78.7
II	8–8	86.5	8.2	78.3
III	9–8	73.3	2.5	70.8
IV	13–1	73.3	11.4	61.9
V	14–1	72.0	6.7	65.3
VI	14–11	90.2	15.8	74.4
VII	15–9	78.9	24.5	54.4
VIII	15–3	51.7	1.7	50.0
IX	15–11	69.2	6.6	62.6
X	17–2	30.0	6.1	23.9
XI	17–4	53.2	1.0	52.2
XII	17–10	45.4	4.7	40.7

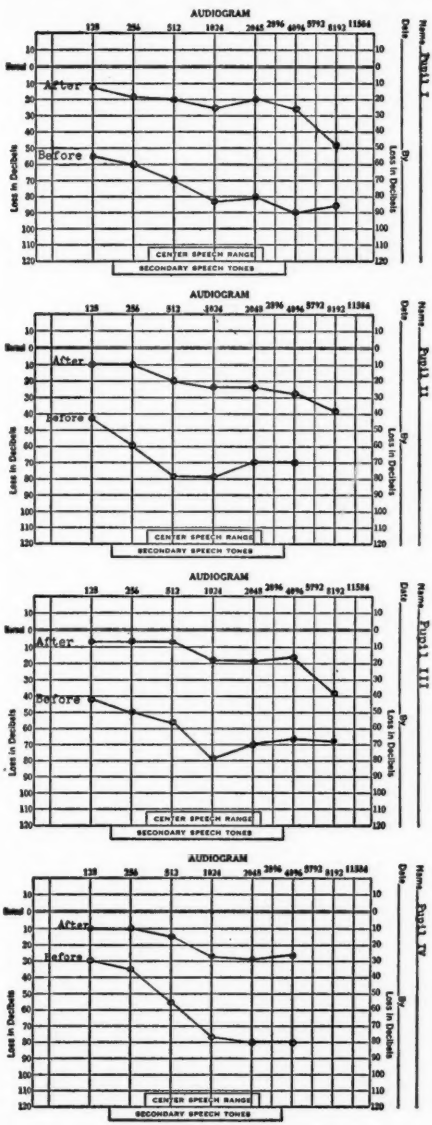
* The percentages were computed by the method devised and suggested by the American Medical Association's Council on Physical Therapy (1). This method was used because four frequency areas are included and because these areas are weighted statistically according to their importance in hearing speech.

decrease in percentage of loss is 78.7. The greatest per cent loss with the hearing aid is 24.5. Five of the children have less than 70 per cent loss and seven have more than 70 per cent loss.

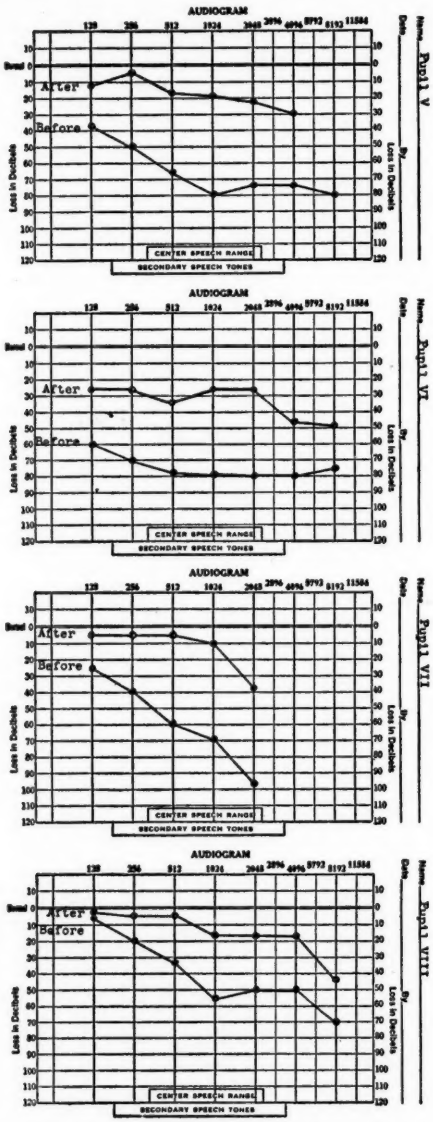
FITTING THE HEARING AID

Because results from acoustic training cannot be expected unless there is adequate amplification throughout the speech range, fitting the instrument to the particular characteristics of the audiogram is considered of paramount importance. Tests of discrimination and comprehension of speech and the interpretation of results based on these tests assume that there is adequate amplification to compensate for the hearing defect. Thus, in fitting the instrument, a series of tests were used to ascertain the gain per frequency. This method of fitting has been described by Galloway (2) and will not be reiterated here. All pupils were fitted with a vacuum tube type of instrument. Because of the severe loss in both ears, the less defective ear was fitted in all cases.

Audiometric charts showing the response on the fitted ear, before and after the hearing aid was fitted, are presented



CHARTS FOR PUPILS I, II, III AND IV SHOWING HEARING CURVES BEFORE AND AFTER FITTING



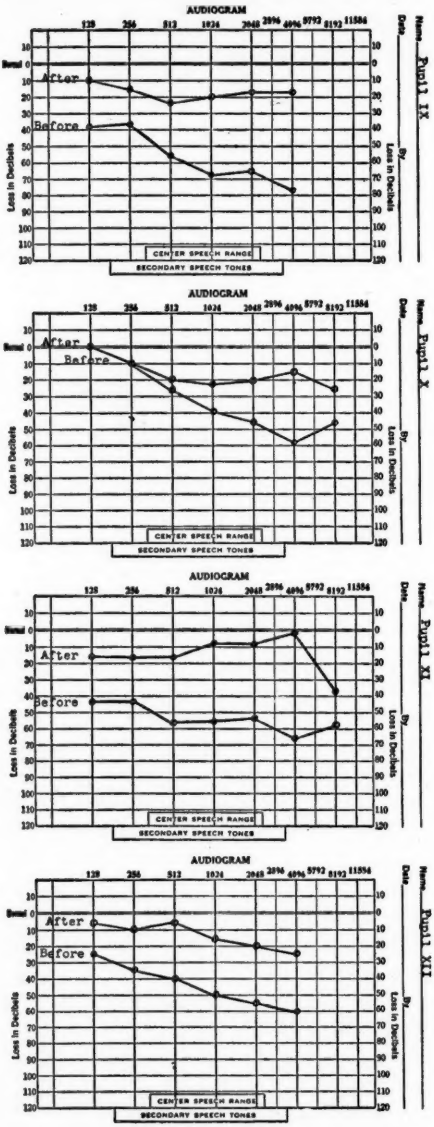
CHARTS FOR PUPILS V, VI, VII AND VIII SHOWING HEARING CURVES BEFORE AND AFTER FITTING

for each pupil. In referring to these charts we note that in all cases the gain is sufficient to produce hearing acuity at conversational level between the frequencies of 256 and 4096. The per cent loss with the hearing aid for Pupils I, II, III, and IV, as shown by the charts, varies from 2.5 per cent to 11.4 per cent. In no case is the response on a frequency within the speech range below 30 decibels.

In considering the charts for Pupils V, VI, and VII we find that the gain is not so satisfactory. Pupil VI has the most inadequate gain throughout the speech range. However, the compensation is sufficient to warrant the expectation of results. In Table I we find that Pupil VI likewise has the greatest per cent loss for speech, the loss being 90.2 per cent. Considering the severe hearing defect and considering that the maximum gain on any particular frequency by the use of individual aids is approximately 50 decibels, this pupil's gain probably represents maximum compensation.

Pupil VII has the greatest per cent loss for speech with the hearing aid,—24.5 (Table I) From the chart for Pupil VII we see that there is no audiometric response beyond frequency 2048. According to the system of calculation used in this study (1), total loss of hearing between 2048 and 4096 involves a total loss for twenty per cent of the speech sounds. Presumably it is not possible to compensate for the lack of hearing in this area by any method of amplification. But, inasmuch as the gain is adequate on the remainder of the speech range, Pupil VII's progress according to our tests of discrimination and comprehension of speech has been satisfactory and the continuance of her wearing the instrument is justified.

Pupils VIII, IX, X, XI, and XII have the least severe losses and consequently according to the tests of gain have almost normal hearing acuity with the hearing aid. This is especially true of Pupil XI, but in the anticipation and interpretation of results, the factor of distortion also must be considered. Although the tests of gain reveal that the hearing acuity approximates the normal, distortion produced by mechanical amplification has been introduced and normal speech will not necessarily follow.



CHARTS FOR PUPILS IX, X, XI AND XII SHOWING HEARING CURVES BEFORE AND AFTER FITTING

A gross measure of distortion has been employed in this study. This measure consisted of sending the pure tones of the audiometer through an amplifier and loud speaker into the microphone of the hearing aid, as was done in measuring the decrease in percentage of loss. However, instead of the pupil listening with the ear piece of the hearing aid, this is done by persons having normal hearing. While this method is subjective, it reveals obvious distortions at the higher levels of intensity. The problem of distortion becomes increasingly difficult as the need for amplification or gain increases.

After the instruments have been fitted and the gain checked, as stated above, it is necessary to exercise continual care of them in order to assure optimum performance. Batteries are not allowed to go below the point of maximum performance specified by the manufacturer.

The Variables and Results

Controlling all the variables in such a study is practically impossible. Nevertheless certain criteria which will assist in the evaluation of results have been established. First, a test of ability to discriminate speech sounds was administered to the pupils at the time the instruments were fitted. These tests have been repeated once a month to ascertain changes in the child's ability to discriminate such sounds. Second, speech recordings were made for each pupil at the inauguration of the study and these have been repeated at three month intervals. The presumption is that as the child's ability to discriminate speech sounds progresses, his speech will correlatively show improvement. Third, a test of ability to comprehend speech, *per se,* has recently been administered and will be re-administered monthly. Fourth, intelligence and achievement test records will be used as a background for interpreting the collected data.

When a child having a severe hearing loss has hearing acuity at the conversational level by the use of a hearing aid, this child within certain limits is ceasing to exist in a silent world and is now experiencing a hearing world. Objective data relative to the effect this experiential change has on the

child's attitudes would be important. Certainly the child's affective life is being influenced. Because of the varying chronological ages of our group, available personality inventories were not applicable and no objective data on this problem have been collected. That modifications of the pupils' total behavioral reactions are occurring seems apparent from observation. "He seems more normal," "She seems to be blossoming out," are typical comments of persons coming in daily contact with these pupils. These personality changes are especially noticeable in the children at the lower chronological age levels.

As from one to two years of constant use of the instruments is considered necessary to achieve maximum results, only the following general conclusions can be made at this time. (A report of the complete results will be made at a later date.)

1. All pupils have shown improvement in speech.
2. Ability to discriminate speech sounds has changed, all pupils showing improvement.
3. The greatest change and progress have occurred with the pupils at the lower chronological age levels.
4. All pupils have experienced desirable attitudinal changes.

REFERENCES

(1) Council on Physical Therapy, American Medical Association, "Tentative Standard Procedure for Evaluating Percentage of Useful Hearing Loss in Medicolegal Cases," *Archives of Otolaryngology*, vol. 36, no. 4, pp. 590-592.
(2) Galloway, James H., "A Hearing-Aid-Testing Clinic," ANNALS, vol. 86, no. 5, November 1941, pp. 429-440.

A Survey of Acoustic Training Programs and Accomplishments in the Public Residential Schools for the Deaf[1]

CLYDE W. JOHNSON, B.A.
Instructor in the Illinois School, Jacksonville, Illinois

FIVE major objectives in any acoustic training program were listed in the constructive 1940 and 1942 reports of the Committee on the Use of Hearing of the American Association to Promote the Teaching of Speech to the Deaf. These objectives are: The improvement of speech, language growth, educational acceleration, improved mental hygiene and aesthetic growth.

Does a sixth objective, the development of hearing vocabularies, merit inclusion in such statements of aims? Many members of the profession have contended that work spent in developing hearing vocabularies would benefit too few acoustic training pupils; others have maintained that insufficient emphasis has been placed upon this phase of the work.

An attempt was made in the present survey to collect information which might show to what degree the public residential schools for the deaf felt they were succeeding in training the hearing of their acoustic pupils. If the number of pupils who could understand language through their hearing alone proved to be large, then the conclusion might be made that the development of hearing vocabularies should become a major objective in such work. If the number was found to be small, then there would seem to be

[1] At the suggestion of Mrs. Elizabeth Hughes Johnson, chairman of the Section on Auricular Training and Rhythm of the Convention of American Instructors of the Deaf, a survey of acoustic training programs and accomplishments in the public residential schools for the deaf was conducted by Mr. Johnson in 1942. The results of this survey were intended to furnish material for the Auricular Training Section's discussions at the Florida Convention in 1943. When the convention was postponed, it was decided that the findings should be published in the hope that they would offer the opportunity for consideration and further study until the Convention again is able to resume its biennial meetings.

little or no advantage to be gained from the addition of such training to the programs in general.

Other questions which long have remained unanswered were included. They were designed to learn how many pupils entered public residential schools for the deaf with the ability to understand language through their hearing and able to talk, how many pupils were transfers from the public schools because of unsatisfactory progress, and approximately how much time was being devoted to acoustic training by the various schools.

THE QUESTIONNAIRE

Please return to: Clyde W. Johnson, Illinois School for the Deaf, Jacksonville, Illinois

(Use back of this sheet for amplification or explanation)

1. When was work with electrical hearing aids begun in your school? .....
2. How many multiple hearing aids do you now have in use? .....
3. How many pupils use these aids daily? .....
4. How long is your daily academic schedule? ..... hours ..... minutes .....
5. The following table is designed to show the time the pupils have available and use the multiple aids daily. For example, if 25 pupils have receivers at their desks for three hours of a daily six-hour academic schedule, this group should be listed as 50%. If the table does not enable you to explain your plan, please use the back of the sheet.

   ..... pupils use aids .....% of time

   ..... pupils use aids .....% of time

   ..... pupils use aids .....% of time

   ..... pupils use aids .....% of time
6. A. How many of the pupils in question 3 came into your school able to understand language through their hearing and able to talk? .....
   B. Of the remainder of the pupils in question 3, how many do you consider you have *now* trained to understand language through their hearing without the benefit of lip-reading? .....
   C. How many more of this remainder do you expect to train to understand language through their hearing after a longer period of work? .....
   D. How many of the children in question 3 do you feel will never be able to understand language through their hearing without the benefit of speech-reading even though other benefits justify continuing their hearing aid work? .....

7. A. How many of the pupils in question 3 use aids in classes which also have oral pupils not using the hearing aids? .....
   B. How many of them are in classes which also have manual pupils? .....
8. How many of the pupils in question 3 came to you from the public schools because they were not making satisfactory progress? .....
9. A. How many of your pupils have available individual hearing aids? .....
   B. By whom are these aids owned? ..... by pupils ..... by school .....
   C. How many of these pupils wear their aids most of the day? .....
10. A. Do you use basic word lists for the training of hearing vocabularies? ..... (If so, please explain on back of sheet where these words are obtained.)
11. Have you had instances where the pupils' ears have been injured in any way through the use of hearing aids? ..... how many? ..... (If possible please explain briefly on the back of this sheet, giving your otologist's explanation and findings, and tell whether it was possible to resume the use of the aid later.)

Name of Individual Preparing Report .....

Position .....

Name of School .....

This questionnaire was sent to each of the 65 public residential schools for the deaf in the United States with the explanation, in an accompanying letter, that its results were to be made available to the Section on Auricular Training and Rhythm of the Convention of American Instructors of the Deaf.

Forty-six schools replied to the questionnaire. Of the nineteen schools not answering, eight listed no pupils in the 1942 "C" Classification in the ANNALS (Number taught wholly or chiefly by hearing). Thus it may be assumed that only eleven schools with established programs of acoustic training failed to answer the questionnaire.

The question, "When was electrical hearing aid work begun in your school?" was included chiefly for assembling this information where it could be made a matter of record. A number of schools reported that there was no definite information available so they listed the date when their present established programs of acoustic training were begun. Miss Margaret Bodycomb, dean of the Pennsylvania School, said she did not consider that acoustic training work

TABLE I

	Date when electrical hearing aid work was begun	*Total enrollment, as given in* ANNALS, *January, 1948*	*Number classified as "C" in* ANNALS, *January, 1948*	*Number using hearing aids according to this survey*	*Percentage of total enrollment using hearing aids*	*Number having aids for use more than 50% of academic time*	*Number having aids for use 100% of academic time*	*Percentage of those receiving acoustic training who use aids more than 50% of academic time*
Arizona	1932	80	7	12	15	0	0	0
Arkansas	1937	263	11	131	50	108	74	82
Colorado	1928	208	28	72	35	32	0	44
Connecticut								
American	1932	214	24	173	81	124	124	72
Mystic	1926	131	37	131	100	0	0	0
Kendall	1935	81	0	44	54	28	28	64
Florida	1937*	254	17	70	28	10	0	14
Georgia	1930	317	0	61	19	1	1	2
Idaho	1932*	97	0	75	77	0	0	0
Illinois	1925	552	161	254	46	179	179	70
Indiana	1925	416	63	75	18	45	45	60
Kansas	1940	210	21	18	9	18	18	100
Kentucky	—	361	0	0	0	—	—	—
Louisiana								
State School	1941	254	20	30	12	30	30	100
For Negro Deaf	—	47	2	0	0	—	—	—
Maine	1921*	105	2	1	1	—	—	—
Maryland, Frederick	1928	170	15	114	67	0	0	0
Massachusetts								
Beverly	1932	85	0	63	74	0	0	0
Boston	1932	143	0	94	66	46	0	49
Michigan	1941	360	63	79	22	72	0	91
Minnesota**	1930	285	40	65	23	—	—	—
Montana	1938	88	0	50	57	0	0	0
Nebraska	1936	194	15	84	43	22	22	26
New Jersey	1937	360	45	210	58	75	0	36
New York								
N.Y. Schoo	1925	243	0	60	25	0	0	0
St. Mary's	1937	232	24	36	16	17	17	47
Central N.Y.	—	133	0	48	36	24	0	50
Rochester	1906	212	9	161	76	76	76	47
Ohio	1930	354	18	65	18	18	18	28
Oklahoma								
Sulphur	1940	262	0	92	35	92	92	100
Taft	—	22	12	0	0	—	—	—
Oregon**	1934	115	27	88	77	—	—	—
Pennsylvania								
Pa. School	1931*	536	221	231	43	231	210	100
West. Pa.	1926	303	23	161	53	45	45	28
Pa. Oral	1937	95	0	95	100	0	0	0
South Carolina	1940	131	94	83	63	42	30	51
South Dakota	1940	105	17	70	67	17	0	24
Tennessee	1936	325	76	187	58	36	0	19
Texas								
School for Deaf	1932	499	73	245	49	32	32	13
Inst. for Colored	—	91	0	0	0	—	—	—
Vermont	1933	63	0	63	100	0	0	0
Virginia, Staunton	1930	229	18	98	43	20	16	20
Washington	1939	151	0	60	40	0	0	0
West Virginia								
Romney	1930	267	0	110	41	50	0	45
Institute	1928	29	0	21	72	0	0	0
Wisconsin	1935	220	0	180	82	0	0	0
Totals		9,892	1,183	4,060	41	1,490	1,057	37

* Florida, only one aid previous to 1937; Idaho had had one aid since 1932 but no definite acoustic program until two new aids added in 1941; Maine, multiple aids not being used because of inability to get repairs; Pennsylvania School had aids previous to 1931 but full-time program instituted then.

** Unable to give figures for number of pupils using hearing aids any set time in advanced departments of Minnesota and Oregon.

with hearing aids was begun there until the pupils were using the aids *throughout the day's academic work.* Other schools, as noted in the footnotes, made similar remarks.

Miss Sarah L. Elliott of the Rochester School entered this interesting comment in regard to the date, 1906, listed for that school. "In 1906 a set of 15 long-distance telephones supplied by the Stromberg Carlson Company of Rochester was installed in one classroom and about one third of the children in the school were able to make use of them. Their speech was helped by the training given. Each pupil was able to control the intensity of each receiver by means of a switch on his desk. Some form of group hearing aid has been used in the school ever since." This early experiment possibly antedates any electrical hearing aid work given in schools for the deaf. A more complete report of the project was published in the February, 1941, issue of the *Rochester Advocate,* which quoted a detailed account written by Dr. Westervelt in January, 1906.

Table I shows that the total enrollment of the 46 reporting schools was 9,892 pupils, which is 72 per cent of the enrollment of all public residential schools as of October 20, 1941.

The column listing the "Number classified as C in the ANNALS, January, 1942" is included for the convenience of the reader in any comparison he may wish to make between these figures and the ones reported in this survey. It is significant to note that some schools apparently list all pupils receiving acoustic training in the "C" classification. Others list only a small proportion of their acoustic training pupils. There would appear to be no standard practice in this respect.

The number of pupils using hearing aids according to the present survey was 4,060 or 41 per cent of the total enrollment of the schools which reported. Only four schools stated they had no pupils receiving training with electrical hearing aids and two of these expressed the hope they soon would be able to begin such programs.

The question concerning the number using hearing aids more than 50 per cent of their academic time was con-

TABLE II

SHOWING THE PERCENTAGE OF ACADEMIC TIME WHEN HEARING AIDS ARE AVAILABLE DAILY TO THE PUPILS RECEIVING ACOUSTIC TRAINING.*

		Percentage of Time											
	School	*5 or less*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*50*	*65*	*75–80*	*100*
Number of Pupils	Arizona			6	6								
	Arkansas			71						12			48
	Colorado		19		11		10			32			
	Connecticut												
	American			49									124
	Mystic			131									
	Kendall	16											28
	Florida		10			30	20			10			
	Georgia	50		60									1
	Idaho		17	30	28								
	Illinois		75										179
	Indiana				30								45
	Kansas												18
	Louisiana State												30
	Maryland												
	Frederick		114										
	Boston		48							19		27	
	Michigan					7				19		53	
	Montana				50								22
	Nebraska			62									
	New Jersey			135						75			
	New York												
	N. Y. School			24	36								
	St. Mary's		10										17
	Central N. Y.					24				24			
	Oklahoma												92
	Pennsylvania												
	Pa. School									21			210
	West. Pa.								116				45
	South Carolina				51		21					12	30
	South Dakota		37		16							17	
	Tennessee							151		16	20		
	Texas	213											32
	Vermont			63									
	Virginia												
	Staunton			70		8				4			
	West Virginia												
	Romney				60					50			
	Institute			11		10							
	Wisconsin			180									
	Totals	279	330	892	288	79	51	151	116	282	20	109	921

* Some schools which were included in Table I are omitted because their data on the number of pupils to whom the hearing aids were available did not permit accurate presentation.

sidered to be one of the most important of the survey. It was extremely difficult to estimate this percentage accurately in some cases and errors may have been made because of misinterpretation of the reports. Only four schools were in the 100 per cent category. Twelve schools had no pupils using the hearing aids more than 50 per cent of the time. One thousand four hundred ninety, or 37 per cent, of all the pupils receiving acoustic training in the reporting schools, had hearing aids available more than 50 per cent of the

time, and 1,057, or 26 per cent, had them available all their academic time.

These figures indicate that there was little uniformity in the time which was spent on acoustic training with electrical hearing aids in the reporting schools. Not all those answering the questionnaire are listed in Table II because some did not include a sufficient breakdown of the time during which hearing aids were available to the pupils.

In 34 schools with a total of 3,346 pupils receiving acoustic training, only 921 pupils, or 28 per cent, had hearing aids available throughout their academic day. The next largest total was 892 pupils who had hearing aids available 15 per cent of their academic time.

Some schools with a few hearing aids used them for comparatively few pupils yet made them available to these pupils all day for their class work. Other schools scattered their acoustic training work by using a few hearing aids for large numbers of pupils, with the result that no pupil in such schools had acoustic training for more than 10 or 15 per cent of their academic time.

The ideal goal in acoustic training work would be, of course, to train the hearing of all acoustic pupils so that it could be used for its most highly prized function, the understanding of spoken language. Obviously, due to the degree of auditory impairment in many of the acoustic pupils and to other factors, it is not possible with today's equipment and methods to achieve this goal for a high percentage of the acoustic pupils. Yet every worker familiar with the acoustic training programs being carried on at a number of schools knows that there are many pupils who have started their training without the ability to use their hearing for the intelligent understanding of conversation, and who have progressed to the point where such an achievement has been made possible.

How many acoustic pupils are being trained to this degree? This question has remained unanswered for several reasons. One is that no one apparently has asked the schools what they have accomplished in this respect. Another is that those interested in acoustic training have purposely

Table III

Showing Ability of Acoustic Training Pupils, Upon Entry or After Training, to Understand Language Through Hearing "Alone."

	Number of pupils receiving acoustic training daily	*Number of pupils transferred from the public schools because of unsatisfactory progress*	*Number of pupils able to talk and understand language through their hearing upon entry in school for the deaf*	*Number of pupils (excluding those in Column 5) who have been trained to understand language through hearing alone*	*Number of pupils who cannot yet understand language through hearing alone but who will be trained to do so*	*Number of pupils who never will be trained to understand language through hearing alone*	*Percentage of acoustic pupils (excluding those in Column 5) who have been or will be trained as reported in Columns 4 and 5*	*Percentage of all acoustic pupils (including those in Column 5) who can or will be able to understand language through hearing alone*
Arizona	12	0	0	0	0	12	0	0
Arkansas	131	10	15	36	30	70	50	62
Colorado	72	12	15	—	—	50	—	—
Connecticut								
American*	173	23	25	0*	0*	173*	0	0
Mystic	131	27	27	—	—	—	—	—
Kendall	44	5	3	11	6	25	39	45
Florida	70	4	13	2	3	55	7	26
Georgia	61	5	0	0	7	—	11	11
Idaho	75	14	15	6	18	35	32	52
Illinois	254	40	53	52	23	108†	29	50
Indiana	75	17	18	25	15	17	53	77
Kansas	18	2	4	4	6	4	56	78
Louisiana State	30	5	3	—	—	—	—	—
Maryland, Frederick	114	11	16	—	—	102	—	—
Massachusetts,								
Boston	94	9	8	10	12	64	23	32
Michigan	79	29	29	33	7	20	51	87
Minnesota	65	30	33	0	0	22	0	51
Montana	50	10	25	0	0	20	0	50
Nebraska	84	6	12	10	—	—	12	26
New Jersey	210	60	60	35	35	80	33	62
New York								
N. Y. School	60	2	3	0	0	0	0	5
St. Mary's	36	15	15	2	2	20	11	53
Central N. Y.	48	9	9	—	—	12	—	—
Rochester	161	15	19	34	16	92	31	43
Ohio	65	8	8	20	15	20	54	66
Oklahoma, Sulphur	92	0	0	0	—	10	—	—
Oregon	88	17	17	3	0	68	3	23
Pennsylvania								
Pa. School	231	50	50	—‡	—‡	—‡	—	—
West. Pa.	161	18	19	41	—	—	25	37
Pa. Oral	95	8	8	—	—	—	—	—
South Carolina	83	26	26	24	21	43	54	86
South Dakota	70	0	7	—	—	—	—	—
Tennessee	187	16	14	27	29	84	30	37
Texas	245	17	17	—	—	—	—	—
Vermont	63	5	5	4	25	29	46	54
Virginia, Staunton	98	3	7	—	—	5	—	—
Washington	60	6	6	3	7	43	16	27
West Virginia								
Romney	110	25	15	—	—	—	—	—
Institute	21	1	2	5	12	3	81	95
Wisconsin	180	5	45	72	—	16	40	65
Totals	3,996	565	667	459	289	1,297	19	35

* We have interpreted these questions to mean that: We have already trained or hope to train in the future residual hearing to the point where the child may rely upon it and it alone for the purposes of conversation.

† Of this total, 99 are oral department pupils who are not expected to achieve this ability from their acoustic training. The remaining nine are in the acoustic department of 155 pupils.

‡ Hearing and seeing method used at all times.

been loath to make any statements during their pioneering work in the comprehensive training of the hearing. Still another important factor has been the realization that until standardized tests are devised, the ability of the pupils to use their hearing may not be reported in the most desirable manner which would include an exact description of the degree of difficulty of the language used. In spite of this latter handicap, however, many executives and teachers were willing to be placed on record in this survey with their estimates of accomplishments in this phase of acoustic training work.

To evaluate such reports it was first necessary to learn how many of the pupils who were receiving acoustic training were transfers from the public schools because their hearing defects made it impossible to do satisfactory work there. Although 46 schools returned questionnaires, it was possible to use the reports from only 40 schools with a total enrollment of 9,181 pupils in the recording of Table III.

These 40 schools reported that 565 of their 3,996 pupils receiving acoustic training were transfers from the public schools. This total represented 14 per cent of the acoustic pupils. It also represented 6 per cent of the total enrollment of these 40 schools.

The same schools stated that 667 of their acoustic pupils could understand language through their hearing and were able to talk upon entry in the school for the deaf. This total was 17 per cent of the acoustic pupils and 7 per cent of the total enrollment of the schools.

By subtracting the number of public school transfers from the number who could talk and hear upon entry, it is seen that only 102 pupils fell in this category. This indicates that these 40 schools for the deaf originally enrolled only about 1 per cent of their children as beginning pupils who could talk and hear. The parents of all the other pupils who could talk and hear first sent them to the public schools and later made the transfer to the schools for the deaf because of the unsatisfactory progress their children were making.

Question 6B asked for estimates of the number of pupils,

excluding those who could talk and hear upon entry, who had been trained to understand language through their hearing without the benefit of lip-reading. The wording of this question may seem unnecessarily harsh to many readers, as it did to some who filled out the questionnaire, because it eliminated so many acoustic pupils who could understand language only through a combination of hearing and lip-reading.

The inquiry was worded in that manner to bring forth for critical consideration the question of just how far our schools have been able to progress along this line. Some who failed to include definite answers to this question gave various reasons, including the following: "We make no special tests to determine how many of our pupils can understand language through hearing alone because all our work is done with the sight-hearing method." "Our program has not been sufficiently developed to make any accurate estimate of this ability." "We would prefer not to make any such evaluation until standardized dictation tests are available for such a purpose."

The comment of Mrs. Elizabeth Hughes Johnson, supervising teacher of the acoustic department of the Illinois School for the Deaf, was typical of the remarks made by some of the schools which did report on the question: "We are probably much in the minority in favoring so strongly the training of the hearing to the point of understanding without lip-reading. Our pupils ordinarily combine hearing and lip-reading. In fact, only about 20-30 minutes a day are devoted to exercises which use hearing without lip-reading. Yet if people with normal hearing are able to understand without sight, we cannot feel satisfied until our acoustically trained deaf children can too—at least to the limits of their hearing and learning and our teaching ability. We find it *is* possible to train many of our acoustic pupils to hear and understand language without watching the speaker's lips and the added drill on vocabulary and language necessary to achieve this also produces added facility in the use of the words, so the time cannot be considered wasted."

Twenty-eight schools with a total of 2,760 acoustic training pupils submitted reports on the questions relating to the training of the hearing of their pupils to the point where they could understand language without the aid of lip-reading. Enough comments were made to assure the writer that few, if any, of these reporters considered "the understanding of language" to mean only the writing of a limited number of short drill sentences, the pattern of which had been established by constant repetition.

The results show that of the 2,760 pupils whose records were available for such a compilation, 459, or 17%, of those who entered the schools unable to understand language through their hearing alone could utilize it for that purpose at the time the survey was made.

They show further that 289, or 10 per cent, of the acoustic pupils in these 28 schools were expected to be able to use their hearing for the understanding of language after additional training.

A total of 1,223 pupils, or 44% of those receiving acoustic training in these schools were classified as individuals who "never will be able to understand language through their hearing without the benefit of lip-reading even though other benefits justify continuing their hearing aid work."

The totals for these 28 schools (it is to be noted that they are not the same as the totals for all the schools listed in Table III) show: 493 pupils able to hear and talk upon entry, 459 trained to understand language without the use of lip-reading, and 289 who were expected to be trained to do so. Combining these figures gives a total of 1,241 pupils which represents 45 per cent of the 2,760 receiving acoustic training in these 28 schools.

This number would seem to be a sufficiently great proportion to justify far more intensive effort in the training of hearing through the development of hearing vocabularies than has been the practice in many schools. It also would indicate that the development of hearing vocabularies should be included as a major objective in acoustic training programs.

Little comment is necessary in regard to this table. The

TABLE IV

	Number of pupils using hearing aids	Number of multiple hearing aids in use	Number of individual hearing aids		Number of individual aids which are worn most of the day	Number of pupils using aids in regular oral classes	Number of pupils using aids in manual classes
			Owned by school	Owned by pupils			
Arizona	12	1	1	0	1	0	1
Arkansas	131	4	1	5	2	0	0
Colorado	72	4	0	5	3	0	0
Connecticut							
American	173	13	0	3	3	—	—
Mystic	131	4	0	0	—	0	0
Kendall	44	6	0	5	3	44	0
Florida	70	7	1	4	3	3	0
Georgia	61	1	0	1	1	0	0
Idaho	75	3	0	3	0	75	0
Illinois*	254	18	9	4	5	99	0
Indiana	75	5	0	4	4	75	0
Kansas	18	2	0	2	1	0	0
Louisiana State†	30	3	7	0	7	0	0
Maine‡	1	8	0	1	—	—	—
Maryland, Frederick	114	2	0	2	2	2	0
Massachusetts							
Beverly	63	3	0	0	0	63	0
Boston	94	6	3	12	4	94	0
Michigan	79	6	0	5	3	0	0
Minnesota	65	6	0	2	1	43	0
Montana	50	1	0	0	—	0	0
Nebraska	84	3	0	22	11	—	—
New Jersey	210	16	12	3	15	0	0
New York							
N. Y. Schoo	60	3	0	4	1	1	0
St. Mary's	36	4	0	1	0	0	0
Central N. Y.	48	2	5	0	—	0	0
Rochester	161	6	6	14	18	10	0
Ohio	65	2	12	6	16	65	0
Oklahoma, Sulphur§	92	2	70	2	37	0	0
Oregon	88	11	0	2	2	—	0
Pennsylvania							
Pa. School	231	21	5	2	2	—	0
West. Pa.	161	10	0	3	2	0	0
Pa. Oral	95	2	0	0	—	0	0
South Carolina	83	5	13	8	21	0	0
South Dakota	70	2	0	0	—	0	0
Tennessee	187	18	0	0	—	0	0
Texas	245	6	0	11	—	0	0
Vermont	63	1	0	1	1	0	0
Virginia, Staunton	98	5	0	0	—	28	0
Washington	60	2	0	3	2	—	0
West Virginia							
Romney	110	6	0	3	3	0	0
Institute	21	1	5	1	2	0	21
Wisconsin	180	10	0	10	5	—	0
Totals	4,060	241	150	154	181	602	22

* Figures do not include 15 individual power sets.
† Individual sets are owned by a hearing aid company.
‡ Multiple aids not being used because of inability to get repairs.
§ About half of the individual sets owned by the school are used in the primary department and the children remove most of them during play. The older pupils wear theirs most of the time.

proportion of pupils using each multiple hearing aid available in the school is clearly shown, ranging from the average of eight acoustic pupils per multiple aid in the Oregon School to the 63 pupils per multiple aid in the Vermont School.

In the data on individual aids an encouraging feature is noticeable. The fact that of the 304 individual aids available, 154 were owned by the pupils indicates a growing consciousness on the part of the parents that hearing aid training is worthy of their co-operation in furnishing aids for their children. Although the estimate that only 181, or 60 per cent, of these aids were worn most of the day by the pupils might seem disheartening, those engaged in acoustic training work know that many school campuses, with their manual influences, are poor proving grounds for the wearing of hearing aids outside the classrooms. It is also true that full appreciation of the benefits of an individual hearing aid frequently does not come until the pupil has been out of school for from one to two years. It is then that many of those who can be benefited either buy aids themselves from their earnings or ask for assistance from the state rehabilitation agencies for the purchase of devices.

Information not Included in the Tables

Question 10 of the questionnaire asked if basic word lists were used for the training of hearing vocabularies and, if so, where the words were obtained. As in the case of time spent on acoustic training little uniformity was observable in the answers.

About one half of the reporting schools indicated they paid little attention to the training of hearing vocabularies. One said: "There is some individual drill with basic vocabulary lists using primary sounds and similar sounds but this work is more or less incidental and is not carried on regularly."

The greatest number agreeing on any one source of words used for hearing vocabularies were the eight schools which said they formed their lists by choosing words from textbooks, daily activities, current events, and other immediate

needs and interests of the pupils. The vocabularies in these instances all were graded according to the academic level of the pupils as nearly as possible with the help of reading textbook vocabulary guides. Two schools said they had discarded work with the Horn and Thorndike lists in favor of such a plan.

Miss Jean Utley, at that time supervising teacher of the acoustic department of the South Carolina School, described her program as follows: "We have a definite program of discrimination from the preparatory class through the advanced department. The daily lessons are prepared far in advance so that each year certain 'necessities' in the 'learning-to-hear' program are included. These lessons are based on a graded basic vocabulary—first through eighth. Each grade's list is a composite basic vocabulary list made up of children's own words, *i.e.*, not those taken from lists suggested by adult literature. Unpublished master's theses and doctorate dissertations were obtained to compile these lists. At least ten and in some cases fifteen lists are represented in each grade's list. (As yet this is an unpublished work.)"

In an effort to determine just how much justification there may be for the frequently voiced caution against harming the hearing of pupils through the improper use of amplified electrical hearing aids, question 11 asked if there had been any instances in which the pupils' ears had been injured in any way through the use of hearing aids. No one reported any known injury to the pupils' hearing. Two stated there had been some instances of irritation of the outer ear, resulting from contact with the receiver but that the trouble in this respect was only temporary. Thus one must conclude either that teachers of acoustic training are exceptionally careful in their fitting of hearing aids or that warnings of the type which have been given are not justified on the basis of actual experience.

Comparison with Other Surveys

It is of interest to compare the results of this study with the estimates of others regarding the number of pupils who have received training of the hearing. Only 1.5 per cent of

the pupils in schools for the deaf in the United States were being taught by the auricular method in 1897, according to Jones.[2] He reported that the percentage dropped to 1.2 in 1907 and to 1 in 1917.

Miss Bodycomb in her Convention talk in 1941 said it was estimated at the 1920 Convention that only 2 per cent of all pupils were being taught by the auricular method but that 40-45 per cent could profit in some degree by such training.

The Day-Fusfeld-Pintner Survey[3] revealed that, in 1924, 1.5 per cent of the pupils of the residential schools studied were being taught by the oral and auricular method and 13.2 per cent of the day-schools, or 3.2 per cent of the total number investigated. In its conclusion this survey asked why more work along these lines was not being done.

The American Association to Promote the Teaching of Speech to the Deaf has conducted two surveys, in 1935 and 1940,[4] the results of which can be compared in some respects with the present study if only the figures pertaining to the public residential schools are used from the Association surveys.

With approximately the same number of responses from public residential schools, the 1935 Association survey showed that 31.2 per cent of the total enrollment was receiving some acoustic training, and the 1940 Association survey showed 33.7 per cent. The present study's percentage was 41, revealing an appreciable increase in the two-year period. An indication that this increase might be even larger than shown can be seen in the comparison of the number of group hearing aids owned by the schools. The 1940 Association survey reported this to be 282 while the present study reported only 241. The absence from this 1942 report of

[2] Jones, J. W., "One Hundred Years of History in the Education of the Deaf in America and Its Present Status," ANNALS, vol. 63, no. 1, January 1918, p. 12.

[3] Day, H. E., Fusfeld, I. S., and Pintner, R., A Survey of American Schools for the Deaf, 1924-1925, National Research Council, Washington, D.C., 1928, p. 209.

[4] Watson, R. B., and Watson, N. A., "Hearing Aids in Schools for the Deaf," *Volta Review*, April and May 1937; and O'Connor, C. D., "The Use of Residual Hearing." *Volta Review*, June 1940.

returns from the Lexington Avenue and Clarke Schools and others which have large numbers of group hearing aids may account for this disparity.

One of the most striking differences between the 1940 Association survey and the present one was the information concerning the time the hearing aids were used. The Association study reported that 1,700, or 46 per cent, of the 3,733 pupils receiving acoustic training were using the hearing aids "the major part of the day." The present study showed that 1,490, or 37 per cent, of the 4,060 pupils receiving acoustic training had the hearing aids available "more than 50 per cent of the academic day" and that only 1,057, or 26 per cent, had them available throughout the academic day. Thus, in spite of an increase in the number of pupils receiving acoustic training, a drop is noted in the time spent if one considers that "the major part of the day" and "more than 50 per cent of the academic day" are the same. The only other explanation would appear to be that some of those answering the Association survey considered "the major part of the day" to be less than "50 per cent of the academic day."

Summary

Forty-six public residential schools for the deaf answered the questionnaire on acoustic training programs and accomplishments which was distributed in the spring of 1942.

The total enrollment of these schools was 9,892, or 72 per cent, of the enrollment of all public residential schools.

The number of pupils using hearing aids was 4,060, or 41 per cent, of the total enrollment.

Of these pupils 1,057, or 26 per cent, had hearing aids available 100 per cent of their academic time.

Of the same pupils 1,490, or 37 per cent, had them available more than 50 per cent of their academic time.

There was little uniformity in the amount of time the different schools made hearing aids available to their pupils.

Forty schools reported that 565, or 14 per cent, of their pupils who were receiving acoustic training, were transfers from the public schools because of unsatisfactory progress

there. This figure represented 6 per cent of the total enrollment of these schools.

The same 40 schools reported that 667, or 16 per cent, of their acoustic pupils could understand language through their hearing and were able to talk upon entry. This was 7 per cent of the total enrollment.

Twenty-eight schools reported that of their acoustic pupils who could not understand language through their hearing upon entry, 459, or 17 per cent, had been trained to the point where they could do so without the benefit of lip-reading. An additional 289, or 10 per cent, were expected to be trained to do so. A total of 1,223, or 44 per cent, were not expected to be able to acquire this ability.

Thus a total of 1,241, or 45 per cent, of the 2,760 acoustic pupils in these 28 schools could be classified as able or expected to be able to understand language through their hearing alone.

This fact would appear to justify far more intensive efforts toward developing hearing vocabularies than is the present practice in many schools. Also this ability in such a large proportion of the acoustic pupils indicates that the development of hearing vocabularies should be included as a major objective of acoustic training programs.

The 42 schools with hearing aid equipment had a total of 241 multiple aids in use. They owned 150 individual hearing aids. Individual hearing aids also were owned by 154 pupils.

There was little uniformity in the sources of basic word lists used for acoustic training. About one half of the schools indicated they did not use basic word lists for this purpose.

No school reported a case of injury to any child's hearing from the use of an electrical hearing aid.

Language Teaching—The Greatest Thing

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JOHN RUSKIN, a famous English writer, once said: "The more I think of it, I find this conclusion more impressed upon me—that the greatest thing a common soul ever does in this world is to see something and tell what it saw in a plain way."

It is well for teachers of the deaf to keep this in mind, for every teacher in our schools for the deaf is, or should be, a language teacher, one who teaches the deaf to do the greatest thing.

Let us always keep in mind that the child born deaf, or who lost his hearing before acquiring any use of language, will always have to work hard to acquire a good command of English. His teachers will have to have patience by the bushelful, by the ton.

In teaching language to the deaf we should take nothing for granted, but remember that to the deaf child English is usually what a foreign language is to us.

We all want our girls and boys to acquire as good command of English as possible. The success or failure of our work as a whole is to a great extent measured by the understanding of English that our pupils and graduates have.

In this brief paper are offered a few suggestions that may be helpful in our efforts to assist our pupils to do what Ruskin calls the greatest thing.

Uniformity throughout the school is highly desirable. The pupils become confused, and, to some extent, lose confidence in their teachers when one teacher tells them to write something one way and another teacher tells them to do it in another way. Both ways may be right. For example, common usage, as illustrated in the daily newspapers, differs in some respects from the forms approved by leading English authorities. The forms approved by leading English authorities are used in our textbooks, library books, and good magazines. It would appear preferable for us to follow the forms approved by authorities.

It is not so important what particular forms we teach, but we should all teach the same forms. Pupils required to use one form are much more likely to get that form fixed correctly in their minds than to get two or three allowable forms right.

In all written work there should be orderliness. Whether the work is on the blackboard, in notebooks, or on other paper, we should all insist that the handwriting be the best that the child is able to produce. It has often happened that children write beautifully in the lower grades, and then become careless and write poorly as they pass through the high school department. If all teachers would refuse to accept poorly written work, we would no doubt soon see great improvement in handwriting. A good, legible hand is of great value to the deaf as many of their contacts with their fellow men are through the written word.

Another point in the orderly arrangement of written work is the margin. We should insist on it. The pupils should have pointed out to them that all books, magazines, and business letters have uniform margins.

All of our textbooks, all library books, all newspapers, and all magazines paragraph correctly. We often see pupils who are careless in this matter and run idea after idea into the same paragraph. Paragraphing is an earmark of good English writing and we should insist on it in all written work in all classrooms from the first grade through the last.

When writing with pen and ink or pencil upon paper, the paragraph should begin one inch from the margin of the body of the composition. In case of typewritten matter, the latest book on the subject suggests the paragraph begin from five to ten spaces from the left-hand margin. When one writes on the blackboard the paragraph should begin about six inches from the margin. In all cases, care should be taken to see that the paragraphs are in correct vertical alignment.

In all composition work it is suggested that the full name of the pupil be placed in the upper left and the date in the upper right. The title is centered below the name and the date. No period should be used after the title. This arrangement should be employed on both paper and the blackboard.

In certain language work, as question work, it is desirable to number the sentences. At times pupils in our classes will draw circles round the numbers. There is no reason for this, as none of our textbooks follow this procedure. It does not look well, and the practice should be discouraged.

In written work pupils at times use the & sign. For example: Mr. & Mrs. Jones went to town. This is the work of a lazy child. We should not permit it.

Another mark of a lazy person is found in writing the date 1/12/43. This should not be allowed at the head of a composition or in ordinary written work. When used in writing bills in a store, there is, of course, no objection.

In ordinary writing it is best to spell out the names of the days of the week, the names of the months, and the names of the states when standing alone. Too often the pupils use abbreviations for these words.

It may be noticed that many pupils use a capital W or a capital M in the middle of sentences when a small letter is clearly called for. It should be insisted that all letters and figures be clearly formed so there can be no misunderstanding.

In writing about their work and play, our pupils often make statements similar to this: John, Larson, Harry, Sund, and I went to the gymnasium. As a matter of uniformity, we should insist that all first names or all last names be used in a sequence of this kind.

Sometimes a teacher may be heard to say that he has not the time to correct all of the small mistakes in language work. This is a gross misconception. In language work, quality counts much more than quantity. Let us remember the Detroit high school teacher who said he was the enemy of good work; he wanted perfect work.

Many times queer expressions, such as most of us would never use, appear in the language work of our pupils. The sentences may not be grammatically wrong. What shall we do? Let it go or show the pupil a better way to express the idea? Good policy suggests that we should show them a better way. If we let it go, the pupil will think the sentence

is in good taste, and go on making the same queer expression until it is a part of his language ability.

There is no doubt that the progress of our language work, at least in the advanced grades, can to a great extent be measured by the amount of real, intelligent reading we can get the pupils to do. Some years ago the writer took a course in literature that required the reading of more than one hundred books and the writing of a report on each book. As some of these books contained five hundred pages and more, it seemed as though all of the books would never be read. However, the work was carried to a conclusion. As the work neared an end, the writer could not help but notice that writing on any subject came easier and easier. It stands to reason that our pupils may benefit in a similar manner.

The Parent's Responsibility for the Child's Interest in Self Help

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RECENTLY the parent of a child in school inquired why it was that his seven-year-old son, Larry, was not able to do many things for himself which their next-door neighbor, Sammy, who also was deaf and of the same age, could do. These were such things as putting on his sweater, washing and drying his hands and face, combing his hair, or putting on and taking off his shoes without assistance. At one point the parent asked bluntly if we were showing Sammy special attention and neglecting his boy. We took pains to assure him such was not the case, and that the supervisors in the school always tried to give every child under their charge the best care. We further assured the parent that the reason Sammy could do many things for himself was that he probably had received early training at home.

During the summer stay at home, Larry's parent could not help but note the marked difference in behavior when his child was compared with Sammy, and he took to berating and scolding him on the score of laziness. It may be Larry's father meant well, but he should have taken into consideration that his scolding might have had a dampening effect on the child's desire to help himself. If he continued on that course, he would complicate matters to such an extent as to develop a conflict complex betwen him and Larry. The same may be said of the supervisor in the residential school.

Instead of scolding the child the parent or the supervisor should encourage him to take an interest in self help, even if it means some trouble and inconvenience. It is much better to keep alive in the child the will to help himself than to quench it. We know that every child tries to do things for himself, from handling a cup and a spoon to finding the armholes in dresses and sweaters and pulling up socks or stockings. The parent or the supervisor may arouse the child's desire to help himself by allowing him to have an

extra washcloth in the bath. He may show the child how to soap it and how to scrub himself. Or he may put socks or stockings on for him over the heel and let him pull them up to the knee. It is easy to teach him to clean his teeth by allowing him to give his teeth a few preliminary strokes with a toothbrush before cleaning them for him correctly. This may inspire the child to cooperate further with the parent or the supervisor.

We are not trying to imply that the parent or early training at home is wholly at fault, but we are of the opinion the parent as well as the school must assume some of the responsibility. Life at home should not be made so easy for the child that he doesn't know what it means to exert himself when he finally reaches the residential school.

Work at the Louisiana State School for Negro Deaf

W. L. Bradford, B.S.
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The State School for Negro Deaf is located at Scotlandville, Louisiana, on the Southern University campus. Its plant includes: a modern, well equipped brick building containing classrooms, offices, and sleeping quarters; a frame building containing well equipped carpentry and shoemaking units; a frame building equipped with modern, metal equipment for home economics instruction, and a poultry unit including a laying house and brooder house.

The faculty is composed of a corps of well trained teachers who have had special training under the supervision of the Louisiana State School for the Deaf at Baton Rouge, West Virginia State College, Hampton Institute, and Columbia University.

The school was organized under the supervision of Southern University for the purpose of offering training to Negro boys and girls of the State whose defective hearing makes it impossible for them to attend the public schools. Two of the main contributions of the school to the pupils are: (1) to mold the attitudes, personality, and character of the deaf child to remove any feeling of inferiority because of a physical handicap; (2) to equip the child with sufficient skills in the fundamental processes and vocational training to prepare him to earn an independent living. The academic program has been organized to promote this well-rounded development of the pupils.

Facts About the Pupils

Enrollment	52
Boys	30
Girls	22
Age range	6 to 26
Causes of Deafness	
Congenital	30
Measles	1
Tonsilectomy	1
Unknown	7

Accident	3
Influenza	1
Mastoids	2
Quinine	1
Spinal meningitis	3
Sinus infection	1
Malaria and typhoid fever	2

Parish Classification

Arcadia	1	Lafayette	1
Bossier	2	Lincoln	1
Caddo	3	Orleans	9
Calcasieu	1	Ouachita	4
East Baton Rouge	6	St. Landry	3
East Carroll	1	Tangipahoa	2
Iberia	3	Tensas	1
Iberville	2	Union	1
Jackson	1	Washington	3
Jefferson	1	Webster	5
		Winn	1

The Academic Program

The program of instruction is divided into two parts, preparatory and elementary. The preparatory years cover all the training a normal child receives at home during his preschool days. The course includes First Preparatory, Second Preparatory, and Third Preparatory. After three years of this preliminary training the pupil is ready for elementary instruction. In preparing teaching material for this phase of the work the state adopted textbooks, public school courses of study, and special courses of study for the deaf are examined. The material is planned, keeping in mind the peculiar needs of the deaf child. The method of teaching adopted by the school is a combination of the manual and oral methods of teaching. It includes finger spelling, script, print, speech training, and lip-reading.

Recently five hundred dollars worth of equipment for auricular training was purchased, including an audiometer and a group hearing aid.

The pupils' hearing will be tested so that their degree of hearing, if any, may be determined. Those with sufficient hearing to use the ear phones of the group hearing aid will be able to participate in socialized recitation.

It is felt that this new equipment will help to improve the speech of the pupils. The ability to communicate with

others will help to develop their self confidence and bring them in closer communication with the outside world.

The academic program is tied into the vocational program. The academic set-up includes vocabularies which facilitate vocational training and the vocational set-up serves as a check upon the language and fundamental processes taught in the classrooms.

The Vocational Program

The vocational program is divided into courses which the deaf can learn, and work which they can do efficiently when they leave school. The program for girls includes: Home economics—sewing, cooking, maid service, home laundering, and handicraft; beauty culture—shampooing, pressing, marcelle waving, croquinole waving, finger waving, and manicuring. The program for boys includes: Industrial shop—carpentry, cabinetmaking, and plastering; yard service; agriculture—gardening and poultry; and shoe repairing.

To discover pupils' interests boys and girls are placed in prevocational courses at the age of twelve. Their special interests and aptitudes are noted. The vocation to be stressed is selected on the basis of the pupils' adaptability, interests, and needs. When pupils have made sufficient progress in class work, they are given some apprentice training and supervised practice in the community around the school to check their progress away from the school. Remedial teaching is based upon the observations and criticisms offered on these jobs. Pupils have shown considerable improvement as a result of this procedure.

Health Program

The school maintains an infirmary under the supervision of a physician and a registered nurse. The children are treated for all minor illnesses and receive routine treatment whenever necessary.

Every precaution is used to insure good health of pupils. Upon entering school all pupils are given a thorough physical examination. Wassermann tests and all immunization tests are administered. Physical defects discovered during the

examination are corrected if possible. Periodic check-ups are held to discover new developments which require special treatment. The physician and nurse work hand in hand with the physical fitness program to promote good health.

Extra-Curricular Activities

No phase of the training of a deaf child is essentially more important than physical training. Not only is this training very valuable in the development of sound bodies, but it also builds up confidence in the deaf child in his ability to compete on even terms with the children of schools for the hearing. Schedules are so planned that each pupil has some supervised play during the day, and in bad weather there are indoor games. Older pupils engage in a full schedule of competitive sports. The boys' basketball team has been making a very fine record.

Various clubs have been organized for the purpose of broadening the pupil so as to afford his development through self-expression and leadership, and to encourage pupil initiative and patriotism. All pupils participate in Victory clubs and purchase war stamps whenever possible.

Opportunities are offered pupils to develop along religious lines. Sunday School is held every Sunday morning. The Catholic pupils attend church in Baton Rouge, and the Protestant group attends church in Scotlandville. Pupils are also given an opportunity to attend vesper service at the University on Sunday evening.

One of the most effective extra-curricular activities is the Boy Scout troop. Among the major activities of the troop are camping, hiking, hobby developments, supporting the salvage drives, and buying war stamps.

At various times during the year such as the opening of school, Hallowe'en, Thanksgiving, Christmas, St. Valentine's Day, St. Patrick's Day, Easter, etc., entertainments are given for the pupils in order to develop desirable social relationships and provide wholesome entertainment.

During the school year two public programs are presented. The first is a chapel program given during the University chapel hour; and the other is the Commencement program

presented in the University auditorium during the Commencement season.

Guidance

The guidance program of the school embraces all phases of the child's development. The activities include: personality development, vocational guidance, and thrift habits.

Each teacher supervises a group of six pupils. All case history material on the group is kept on file by the teachers and all interesting material is compiled and filed whenever the occasion arises.

Pupils with undesirable personality and character traits are given special attention and the progress in the case is charted. All favorable and unfavorable occurrences bearing on the case are studied and remedial measures are used whenever possible.

The supervisor keeps a check on the pupils' interests in trades and offers helpful suggestions. Classroom teachers work hand in hand with the counselors.

Thrift is encouraged and the counselors along with the dean of boys and of girls aid the pupils in spending their money wisely.

Summary of Pupils' Outside Work

Boys taking courses in shoe repairing, yard service, and carpentry are given a chance to do outside work to prepare themselves for permanent jobs in the future. Some of the boys earn enough money for purchasing clothing, thus the training serves a two-fold purpose. The boys earn from three dollars to twelve dollars and fifty cents a week according to the type of work done. A summary of the work is as follows:

Four boys work in a shoe shop
Three boys from the yard service group work at the University
Three boys from the carpentry group work in Scotlandville
Two boys work in the dining hall

Duration Activities

For the duration efforts are being made to increase the output of poultry, vegetables and fruit.

At present there are eighty laying hens on hand. The present stock is being doubled. During the past years one hundred twenty-five ducks were raised for stock and consumption. This will be raised to three hundred. Rabbits have been purchased and will be produced to serve as a meat substitute. Three brood sows have been purchased and in the course of a year at least fifty pigs will be raised for the dining hall. Plans are being made to enlarge the school's garden and grow more year-round foods. Realizing the present food shortage and foreseeing a greater shortage in the future, efforts are being made to offset any difficulty in obtaining food for the school.

Pupils are kept aware of the changing times. It is hoped to prepare them to take their places in a dynamic society. It is felt by the faculty that pupils capable of earning a living are endowed with a self confidence which will help them to take their places in society free of a feeling of self consciousness because of a handicap.

It is the aim of the school to produce a well trained happy deaf individual, to fit him for a life on which his handicap casts no shadows, but which is full day by day with those things which make life worth while.

Production for the School Versus Practical Vocational Education

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IN HIGH SCHOOLS and colleges, hitherto showing very little interest in vocational education, rapid strides are being made to correlate academic subjects with vocational lines. Special courses in mathematics, engineering, drafting and a host of others, are being offered students in an effort to speed up their training for military and industrial purposes. While it is quite obvious that there is little chance for the deaf in military training, there is still the industrial world, and the deaf are invading it by the thousands as more and more manufacturers look for draft-exempt workers. It is not difficult for our school graduates to find employment now, but there will again be a time when they will have to depend upon the vocational training they receive at the schools for the deaf for knowledge of a trade whereby they may earn their living.

Every day new questions confront vocational teachers in schools for the deaf. Are the schools as a whole keeping up with today's trend? Are they so training their students that they can be absorbed into the modern industrial world? Are the students receiving full benefit from the vocational courses they are taking in their respective schools? After the war, What?

It is quite apparent that some schools are fully and competently equipped to give their students the best possible vocational training. However, it is doubtful if this holds true for the majority of the schools.

"For a great many years, schools for the deaf have been leaders in the field of trade and industrial education. Years ago the equipment in our school was first class and up to date; however, we have not kept it up to date, and the present emergency has found some of our shops attempting to teach a trade with 1915 model machines. . . ."[1] This is not

[1] Quoted from the *Budget Report* of Supt. John L. Caple, of the Arkansas School, in the January 1943 issue of the *Arkansas Optic*.

an isolated instance, but a condition that actually exists in many other schools. And why does such a condition exist? Various reasons can be offered that would give unsatisfactory explanation. Possibly the first and most stressed would be that finances are lacking to improve the shops. If we assume, however, that there is a possibility of obtaining funds for shop improvements and still these appropriations are struck from the budget by well-meaning, but non-comprehending legislators, then the school should take the responsibility of acquainting their respective legislatures with the importance of the request for these funds.

There is still a second answer why such conditions exist in the shops. This answer is offered with no idea of criticism, but rather to bring to light a prevailing condition whose significance is not generally appreciated. The answer stems from a discussion which the writer remembers in the Senior year at college.

"What was the motive behind establishing of vocational training in the schools for the deaf?" the professor asked one day. It is too much to attempt to go into the detail of the long discussion that followed as each member of the class offered his or her opinion. It should be stated here that every member of that class had attended a school for the deaf for some time, and that these schools are spread over America; therefore, they knew of existing conditions in their respective schools. To come back to the question in mind, the students seemed of one opinion—that schools for the deaf had established vocational trades to enable the deaf to master a trade whereby they might earn their living.

It is not possible to recall the exact words of the professor as he answered his own question, but the impression remains, "That schools for the deaf established vocational trades so the trades might produce for the school." The trades are still producing. And some shops still retain their out-moded 1915 model machines, because these machines still *produce efficiently* for the school. Let us take an inventory of the average printing shop. It is usually composed of a linotype, one, two or three job presses, a paper cutter, a stitching machine, a cylinder press, a lead and rule cutter and various

other small items such as type, chases, furniture, leads, etc. Of the various types of paper cutters, the school is probably equipped with one that is hand-powered and small. The linotype is usually of the 1915-1920 variety of the Model 8 Linotype that sets only straight matter. There are no special attachments with the Mohr saw, self-centering device, recessed molds, Thermo-blo cooling unit, divided magazines and many other improvements. With such a lay-out, how is the student to receive safety instruction in the use of a power-driven paper cutter, instruction in the use of the above mentioned attachments on the linotype, the peculiarities of a casting block in relation to hot metal, the accuracies of a mitering machine, the use of a router, and many other machines in use in commercial shops that save time and give greater economy? And our students will some day seek employment in these shops. Can one picture the United States Army training its pilots with 1918 model airplanes? Such a question is absurd; but it is also absurd to attempt to train students with 1915 model machines.

The machines first mentioned above are really all the school needs in order to carry on its production. Why should the school obtain a casting block when it has no use for it; a power cutter, when a hand cutter does just as good a job of cutting paper; set up a photo-engraving department when it is much cheaper to have a commercial firm make all the cuts it needs; have a mitering machine when a greater part of the school's forms require no precision borders; why have a Model 31, or 14, or a "Blue Streak" Linotype when a Model 8 will do; why have precision machines when the school is not inclined to set up advertisements? Yet, when the student leaves school, he faces all these problems and possibly more. For example, let us take the case of a fellow who graduated from a school for the deaf and then secured employment on a weekly newspaper. When the war came along, he was the first to go when the plant had to economize. He then obtained employment in another plant through influential channels. He lasted one week. Reason given—too slow. Through the same channels he again secured work in

another plant and again was politely, but firmly, told that his services were no longer required. The reason this time was that he could not set up advertisements on the linotype. If this boy had received training on up-to-date machines, he would have a steady job today. One cannot expect an operator on a linotype to obtain speed on a machine that acts like a Model T Ford. The operator spends half his time tinkering with the machine as something is constantly going wrong with it. If it is something serious, then the student must stand by while the instructor tackles the job of getting it in running shape again. More time lost. It is a source of irritation to an operator to have the distributor constantly stopping. In this case, he spends half his time getting up from his chair and going around to the back of the machine and starting the flow of matrices again. And the whole trouble is due to worn-out parts, in fact a worn-out machine that should be on the scrap heap. In the course of three or four years, the school can easily spend, on replacement parts, an amount equal to about half the price of a new machine.

The vocational departments have served production these many years. The combined amount of funds saved the school through its own vocational production should run well into the thousands. Is it not time for Vocational Education to take its rightful place in the school system and Production dropped to "matters of secondary importance"?

The Adult Deaf of Franklin County, Ohio—Their Educational Background and Interests—III[1]

JAMES THEODORE FLOOD, M.A.
Instructor in the Ohio State School, Columbus, Ohio

Preceding sections of this study reported a plan for an intensive study of the background of the deaf residents of Franklin County in the State of Ohio, summarized major findings of similar survey studies of the adult deaf in other places, and presented an analysis of such factors as age distribution, sex, color, age at time of onset of deafness, reported cause of deafness, marital status, schools attended, length of stay in school, age at time of leaving school, school attainment, "method" of education and means of communication.

In the present section the study concludes with a consideration of other factors.—*Editor,* ANNALS.

EMPLOYMENT STATUS

From figures, on employment, Table XXIII, it is evident that the deaf, as a class, were rather hard hit by unemployment at the time this study was made. Most of the married women reported their occupation as "housewife." The greatest amount of unemployment was found among single persons, 41.8 per cent of the single men and 45.2 per cent of the single women being unemployed at the time of the survey. The percentage of unemployment among the adult deaf was high when compared with the percentage of hearing people out of work. The total is 64.7% at work and 35.3% unemployed. Eichholz, in his report on the British survey, listed several factors which he thought were causative for the same condition in Britain. He said:[2]

TABLE XXIII

EMPLOYMENT STATUS

	At Work	*Per Cent*	*Not at Work*	*Per Cent*
Married men	64	68.8	29	31.2
Single men	39	58.2	28	41.8
Married women	15	93.8	1	6.2
Single women	23	54.8	19	45.2
TOTALS	141	64.7	77	35.3

[1] Continued from the March 1943 ANNALS, pp. 155-167.

[2] Eichholz, A., A Study of the Deaf in England and Wales, London, England, His Majesty's Stationery Office, 1932, pp. 70-71.

> Deaf . . . boys and girls from the Special Schools enter an overcrowded labor market. . . .
>
> It is alleged that employers hesitate to offer work to the deaf . . . on account of risks arising under the Workmen's Compensation and Employers' Liability Acts. The National Institute for the Deaf have put forward the same point. . . .
>
> The trades at present taught in some of the schools are less likely to lead to employment in future owing to the introduction of methods of mass production.

The assertions of Eichholz as stated above find echo in the assertions of the National Association of the Deaf in America which holds that Workingmen's Compensation Laws and Employers' Liability Acts hinder the deaf in their attempts to find employment because of the mistaken belief that the deaf are more apt to fall victims to accidents than are hearing people. It is also said that the mass production industries have little use for master craftsmen, and most of them prefer to train their own workers on the job. In the case of the deaf would-be applicant, the fact that it would be difficult to communicate with him during the training course would, probably, effectively shut him out from the major industries where efficiency and dispatch are the keys to profitable operations.

However, Eichholz said in regard to the advantage of hiring deaf works:[3]

> Certain employers attach a special value to deaf employees as being less liable to have their attention distracted and able, therefore, the better to concentrate upon their work. . . .
>
> . . . the (deaf) employees give more concentration to their work realizing the effect of their handicap on their chances of continuous employment.

Continuing, Dr. Eichholz voiced the opinion,

> . . . My own opinion is that the cause is to be sought in the imperfect provision for vocational training in the local school for the deaf.

It was discovered in the present study that many of the persons interviewed had learned several trades in school under industrial arts curricula. It may be significant that very few of them afterwards followed the trades they learned in school. This seems contrary to the reported findings of one survey. It may be that in this survey many of the people reporting as having followed the trade learned in

[3] Eichholz, A., *Op. Cit.*, p. 72.

school meant *that they had secured a job in one of the several trades they had learned something about while at school.* For instance, bakery work is now so handled that a worker might be employed in a bakery greasing pans and

TABLE XXIV

NATURE OF EMPLOYMENT—MEN

Teachers	11	Plumber	1
Domestic service	10	Linoleum worker	1
Laborers	8	Administrator	1
Janitors	7	Optical grinder	1
Linotypers	7	Repairman	1
Bakery workers	6	Stone mason	1
Painters-decorators	6	Poultry dresser	1
Factory workers	5	Chef	1
Meat packers	4	Electrical worker	1
Contractors	4	Printer	1
Shoe repairmen	3	Upholsterer	1
Bookbinders	3	Supervisor	1
W.P.A. projects	3	Missionary	1
Truck drivers	3	Inspector	1
Floor finishers	2	Beer bottler	1
Proprietors	2	Artist	1
Farmers	2		
Glove worker	1	TOTAL	103

still be listed as following the "baking trade" about which he learned something while at school. Similarly, pressing clothes is part of the "tailoring" trade; stacking lumber in a mill-yard may be "woodworking," etc.

Table XXIV lists the different kinds of work being done by deaf men. The first item on the list requires explanation.

TABLE XXV

NATURE OF EMPLOYMENT—WOMEN

Domestic service	10
Laundry workers	6
Factory workers	4
Teachers	4
Bookbinders	2
Waitresses	2
Glass workers	2
Playground supervisor	1
Housemother or matron	1
Linotypist	1
Clerk	1
Glovemaker	1
Meat packer	1
Seamstress	1
Shoe factory worker	1
TOTAL	38

The teachers listed were employed at the State School for the Deaf and many of them established residence in the county after obtaining appointments. There is a noticeable absence of professional and proprietory classes, otherwise.

The majority of the adult deaf women were engaged in domestic service of some sort. Laundry and factory work gave employment in the next largest numbers. It must be remembered, however, that most of the adult deaf women reported their occupation as "housewife." One interesting item in the table is that one woman reported her occupation as a linotypist, an unusual occupation for a woman.

TABLE XXVI

PERMANENCY OF EMPLOYMENT

	Permanent	*Part-Time*	*Temporary*	*Total*
Married men	60	2	2	64
Single men	27	4	8	39
Married women	12	1	2	15
Single women	21	1	1	23
TOTALS	120	8	13	141

The percentage given for the total number of deaf adults employed shrinks when the permanency of their jobs is taken into consideration. Table XXIII lists 141 as having jobs, but only 120 really had permanent employment. On this basis the percentage of gainfully and permanently employed drops from 64.7 to 55.0% and the percentage of the unemployed jumps from 35.3 to 45.0%.

TABLE XXVII

ATTITUDE TOWARD JOB

	Like Job	*Don't Like Job*	*Total*
Married men	58	6	64
Single men	36	3	39
Married women	13	2	15
Single women	22	1	23
TOTALS	129	12	141

Regardless of the nature of the work in which they were engaged, deaf workers reported themselves well satisfied with their jobs. Only 12 out of 141 expressed dissatisfaction with their work, and the causes given were low pay, seasonal jobs, and long hours. This latter complaint coupled with the

other of low pay may imply a small amount of exploitation of the deaf workers by certain employers. It is evident, however, that if the practice does exist, it is not widespread. Another explanation may be found in the matter of wages.

Wages of the Deaf Compared to Those Received by the Hearing.—The replies to the question in the study relating to the pay received by deaf workmen as compared to that received by the hearing were found to be of little value because few could answer. The answers therefore were not tabulated. Of the replies received, some said that the same pay was received but a great many frankly stated they did not know with certainty. Some hazarded guesses and some of those dissatisfied with their jobs said they received less pay than did hearing persons doing the same work.

There seems to be, unfortunately, a legal basis for an employer to pay a deaf worker a lower minimum wage than is paid to a hearing worker doing the same work.

TABLE XXVIII

THE UNEMPLOYED—MEANS OF SUPPORT

	Married		*Single*		
	Men	*Women*	*Men*	*Women*	*Total*
Relief	14	1	4	1	20
Pensions	8	0	1	0	9
Relatives	5	0	21	18	44
Self	2	0	2	0	4
TOTALS	29	1	28	19	77

Table XXVIII does not include three men stating that they were employed on W.P.A. projects. The majority of the married men out of work reported themselves as on relief. The largest group, however, consisting of 44 single and married persons, was dependent upon relatives for support. On a percentage basis, that was 57.1% of the unemployed.

The survey did not attempt to find out the total number of the deaf including wives and children dependent upon relief and relatives.

Pensioners included those receiving state retirement, old-age, and annuity pensions.

Tables XXIX and XXX are tabulations which indicate

TABLE XXIX

EMPLOYED PEOPLE—DESIRE FOR FURTHER SCHOOLING IN RELATION TO MARITAL STATUS AND SEX

	Desire		
	Schooling	*No Schooling*	*Total*
Married men	39	25	64
Single men	16	23	39
Married women	46	51	97
Single women	13	10	23
TOTALS	114	109	223

TABLE XXX

UNEMPLOYED PEOPLE—DESIRE FOR FURTHER SCHOOLING IN RELATION TO MARITAL STATUS AND SEX

	Desire		
	Schooling	*No Schooling*	*Total*
Married men	8	21	29
Single men	15	13	28
Married women	0	1	1
Single women	12	7	19
TOTALS	35	42	77

NOTE: One married woman said she didn't know what she wanted.

the relationship between marital status, employment, and desire for more schooling. One hundred and fourteen out of 223 employed (including those employed as housewives) expressed a desire for further schooling. One hundred and nine said that they were not interested. The largest group desiring more schooling was the group of employed married men; 30 out of 64 of them thought they would like to learn something. The single employed men, for some reason or another, did not seem to look with favor upon further schooling. It may be that many of them were recently out of school and had not yet faced the problems experienced by married men with families to support.

Of the unemployed group only 35 out of 77 wished to try further schooling as a means of bettering their condition. The reason for this might be an interesting subject for further study. For instance, how does this compare with the attitude of unemployed single hearing persons?

According to the tabulation in Table XXXI, the majority of the adult deaf found need for further knowledge of the

TABLE XXXI

ACADEMIC COURSES DESIRED IN RELATION TO MARITAL STATUS AND SEX

	Single		*Married*		
Courses	*Men*	*Women*	*Men*	*Women*	*Total*
English	17	15	22	16	70
Arithmetic	5	15	16	16	52
Lip-reading	5	12	3	7	27
Civics	5	6	7	6	24
Speech	6	6	2	6	20
Vocabulary	5	5	5	4	19
History	3	2	8	4	17
TOTALS	46	61	63	59	229

basic school subjects. Language is difficult for deaf children to master. Small wonder then that adults realize a need for further training in English expression. The second most desired subject was arithmetic. Again it may be noted that the number of married people desiring schooling was larger than the number of single people desiring schooling.

TABLE XXXII

VOCATIONAL COURSES DESIRED IN RELATION TO MARITAL STATUS AND SEX

	Single		*Married*		
Courses	*Men*	*Women*	*Men*	*Women*	*Total*
Sewing	0	26	0	15	41
Cooking	3	8	0	13	24
Bookkeeping	9	0	5	3	17
Typing	4	6	0	4	14
Printing	5	0	9	0	14
Housework	0	4	0	10	14
Shoe repair	3	0	8	0	11
Cosmetology	1	4	0	4	9
Auto mechanics	5	1	2	0	8
Journalism	0	2	0	0	2
TOTALS	30	51	24	49	154

The number of different vocational courses sought was not great. Women desiring cooking and sewing frequently listed the subject both as a trade and under "other subjects" on the questionnaire. When the subject was listed twice in this way, the two were tabulated together as one.

It is evident from the tabulation that the desire for vocational courses does not always seem logical. Such occupations as bookkeeping and journalism are seldom reported by the deaf. Guidance is evidently needed.

TABLE XXXIII

HOMEMAKING COURSES DESIRED IN RELATION TO MARITAL STATUS AND SEX

Courses	*Single*		*Married*		*Total*
	Men	*Women*	*Men*	*Women*	
Budgets	3	5	7	14	29
Health	5	7	7	4	23
Child care	0	3	6	12	21
Menu planning	0	8	0	13	21
Decorating	5	2	3	9	19
Marriage problem	3	4	4	6	17
First aid	4	3	5	4	16
Nursing	0	5	0	6	11
Insurance	4	2	2	3	11
Household repair	1	3	3	2	9
Religion	0	1	4	2	7
Consumers problems	2	0	1	1	4
TOTALS	27	43	42	76	188

The brunt of the task of running a home successfully rests in the hands of the women. It is not surprising, therefore, that they desire to do a good job of it by learning more concerning this work. Budgets, health, child care, menu planning and decorating comprised the four courses most desired in homemaking. The number interested in subjects pertaining to health was almost evenly divided among the married and single men and women. Marriage problems and first-aid courses were also rather evenly distributed while nursing and menu planning were exclusively subjects of interest to women. The Taylor Survey[4] reported one girl suggesting, "Home economics should give more of homemaking."

There is some doubt that Table XXXIV was wholly accurate. Some of the questions tabulated were answered in such a manner that it was believed the answers meant that the item marked was already a leisure time activity and not a course about which additional knowledge was desired.

This point is not of much material importance because the question was included to secure data for planning a recreation program. As it is, cards headed the list of games liked by most of those interested in recreational opportuni-

[4] Taylor, Norman M., An Analysis of the Vocational Functions of a State School for the Deaf, Columbus, Ohio, M.A. Thesis, The Ohio State University, 1934, p. 59.

TABLE XXXIV

RECREATIONAL COURSES DESIRED IN RELATION TO MARITAL STATUS AND SEX

	Single		*Married*		
Courses	*Men*	*Women*	*Men*	*Women*	*Total*
Cards	2	6	8	8	24
Gardening	2	3	7	9	21
Swimming	3	10	1	2	16
Tennis	3	8	2	2	15
Hiking	2	5	1	4	12
Camping	2	4	1	3	10
Golf	1	2	5	0	8
Stamp collecting	2	0	0	1	3
Model building	2	0	1	0	3
Coin collecting	1	0	0	1	2
Dancing	0	1	0	0	1
TOTALS	20	39	26	30	115

ties. Women seem to like swimming more than men. Hobby courses did not seem to be very much in demand. Married people expressed preference for cards and gardening, while single men and women desired more active types of recreation such as swimming, tennis, hiking and camping which, by the way, are outdoor activities, while cards are a fireside pastime, and gardening a backyard affair.

TABLE XXXV

COMBINED SUMMARY OF COURSES DESIRED IN RELATION TO MARITAL STATUS AND SEX

	Single		*Married*		
Courses	*Men*	*Women*	*Men*	*Women*	*Total*
Academic	46	61	63	59	229
Homemaking	27	43	42	76	188
Vocational	30	51	24	49	154
Recreational	20	39	26	30	115
TOTALS	123	194	155	214	686

Academic subjects seemed to be most desired by deaf adults. Homemaking learning opportunities followed closely behind academic courses in the numbers desiring such courses. Vocational and recreational courses trailed. Only one half as many reported interest in recreational courses as did those for academic courses. Women listed 409 person-courses while men listed 278. This is in keeping with a report about an adult school for the deaf at Washington, D.C. The most successful classes reported there were homemaking

courses for women. The W.P.A. School in Kansas City did not offer homemaking courses. The most popular courses in that school were English and arithmetic.

TABLE XXXVI

TEACHER PREFERENCE—DEAF OR HEARING—IN RELATION TO METHOD OF EDUCATION

Preference	*Oral Group*	*Manual Group*	*Combined Group*	*Total*
Deaf teachers	40	73	49	162
Hearing teachers	51	8	19	78
No preference	16	11	13	40
TOTALS	107	92	81	280

(Not reporting, 21)

There is no basis for comparing the information in Table XXXVI with the results of any other survey because no data could be found. The results may be significant in that they show how greatly the adult deaf lean toward the sign language and finger spelling. The orally taught group seemed to prefer hearing teachers, 51 to 40, but that may be because some of them never had an opportunity to be under a deaf teacher in school. The manually taught group had a strong preference for deaf teachers. The group taught by both hearing and deaf teachers in the schools they attended also preferred deaf teachers. Of the totals, 162 stated that they preferred to have a deaf teacher and 78 said they preferred a hearing teacher. Forty of the total said that it did not matter to them whether the teacher was deaf or hearing.

A good many people wrote down their preference as to teacher and courses without saying that they intended to go to adult classes if the latter were organized. This accounts for the larger number of replies to this question than affirmative answers obtained to the question regarding desire for further schooling.

All groups as in Table XXXVII above exhibited a decided preference for men teachers, although 143 said they had no special preference. It may be that women teachers are more lenient and that men teachers are a bit more strict in their treatment of their pupils. The author has noted a preference of this sort as a trait in deaf school children. They

TABLE XXXVII

TEACHER PREFERENCE—SEX—IN RELATION TO METHOD OF EDUCATION

Preference	*Oral Group*	*Manual Group*	*Combined Group*	*Total*
Men teachers	37	37	26	100
Women teachers	24	9	12	45
No preference	46	54	43	143
TOTALS	107	100	81	288

(Not reporting, 13)

prefer a strict and forceful teacher to one who lets them have their own way. This was also noted while the writer was a student at Gallaudet College.

Here again the preference of the deaf for the signs and manual alphabet was strongly evident. One hundred and ninety-eight out of 281 said they preferred manually taught classes. Only 64 said that they preferred oral classes. It is significant that almost as many of the orally taught group said that they preferred manual classes as preferred oral

TABLE XXXVIII

PREFERENCE AS TO METHODS

Preference	*Oral Group*	*Manual Group*	*Combined Group*	*Total*
Oral classes	48	1	15	64
Manual classes	45	91	62	198
Either	14	1	4	19
TOTALS	107	93	81	281

(Not reporting, 20)

classes while only one manually taught adult indicated a desire for an orally taught class. Of the combined group the preference for manual classes was 4 to 1. The groups, as a whole, preferred manual classes 198 to 64, better than 3 to 1.

The orally taught groups seemed to have more interest in a greater variety of activities than did the other two groups. Movies and talking, however, seemed to be the chief recreational activities of all three groups, although the oral group reported a greater interest in movies than in talking. Cards and walking were given second choice in preference by the manually taught and the combined group, but the oral group preferred to listen to the radio.

TABLE XXXIX

RECREATIONAL ACTIVITIES REPORTED OTHER THAN GAMES AND READING

Activity	*Oral Group*	*Manual Group*	*Combined Group*	*Total*
Movies	59	43	39	141
Talking	44	53	42	139
Cards	32	31	35	98
Walking	16	22	23	61
Fishing	17	18	16	51
Swimming	15	7	9	31
Radio	20	3	5	28
Clubwork	8	7	12	27
Dancing	16	3	5	24
Camping	8	4	4	16
Visiting	7	5	2	14
Tennis	4	0	4	8
Baseball	3	2	1	6
Hunting	2	3	1	6
Sewing	2	1	3	6
Hiking	4	0	1	5
Driving	1	1	0	2
Skating	1	0	0	1
TOTALS	259	203	202	664

The oral group also listed dancing in 16 cases while only 8 of the other two groups listed it. Ability to get the rhythm of the music may account for this because more of the oral group than of the other groups stated that they had residual hearing.

Fifty-one persons reported that fishing was one of their three most frequently engaged in activities. The next largest number reported themselves engaged in club work. Only a small number named the other activities listed.

TABLE XL

GAMES REPORTED PLAYED

Baseball	7
Bowling	5
Cards	5
Bridge	2
Basketball	2
Chess	1
Volleyball	1
Football	1

Not many of the adults reported playing games as one of their major recreational activities. Table XL gives the total number of times each game was mentioned.

Reading and Recreational Interests.—Answers to the question connected with reading and recreational interests were not tabulated by sex or by other ways of differentiating into classes. It may be pointed out, however, that of the total number who answered the questions, 197 said that reading was one of their most frequent pastimes and 104 did not so list it.

TABLE XLI

PREFERENCE AS TO READING MATTER

Preference	*Number Reporting*
Newspapers	120
Magazines	105
Books	24
Fiction	21
Novels	12
"Everything"	5
History	5
Current events	4
Biography	3
Non-fiction	3
Sport books	3
Bible	2
Politics	2
Science	2
Philosophy	1
Textbooks	1

Newspapers and current magazines stood out as the best liked reading matter for the adult deaf.

Church Affiliation and Attendance.—Deafness shuts off the most potent avenue of reaching the mind and touching the heart. Nevertheless, Tables XLII and XLIII, tabulations of the religious affiliations of the adult deaf and the frequency of church attendance, show that the deaf are religious minded and attend church.

TABLE XLII

RELIGIOUS AFFILIATION REPORTED

Protestant	238
Catholic	43
Hebrew	3
Not reporting	17
TOTAL	301

Table XLIII is a tabulation of the frequency of church attendance.

TABLE XLIII

FREQUENCY OF CHURCH ATTENDANCE

Regularly attend	61
Sometimes attend	63
Seldom attend	67
Never attend	98
No report	12
TOTAL	301

VI. SUMMARY

One of the outstanding occurrences of the past two decades has been the spontaneous development of a national interest in adult learning opportunities. Prior to 1926, few adults concerned themselves with continuation of education; but, since the disruption of the economic equilibrium of the twenties, the public has turned in large numbers to education for a solution of its social and economic problems. Schoolmen and laymen alike realize the potentialities of adult education in a democracy and the portent is that this form of education will play an ever-increasing part in shaping the destiny of our country and of its individual citizens.

The movement lacks the co-ordination prerequisite to equalization of educational opportunity. Certain groups are prevented from participating in available learning opportunities because necessary special provision for their inclusion has not yet been made. Among these people are the deaf.

Were provision to be made for the deaf to participate, certain questions and problems would be raised. These would have to be worked out. A natural question would be, "Are the deaf capable of taking advantage of such opportunities?" The answer to this seems to be found in the report of Miss Timberlake in the *Volta Review* summary of deaf students in schools and colleges for people with normal hearing. Another question might be, "Would the adult deaf take advantage of educational opportunities if provision were made for them?" Here again the answer could be found in the success of the W.P.A. Adult Evening School for the Deaf at Kansas City.

The ability and inclination of the deaf to grasp educational opportunities are but two of the many questions and problems for which a solution would have to be found before concrete steps could be taken to extend to the adult deaf the same educational opportunities now available to persons with normal hearing. Among the problems are those of sponsorship, financing, staff personnel and the assembling and analysis of detailed information concerning the prospective student body so that an intelligent approach could be made to the problems of planning such a school and arranging courses commensurate with the abilities, interest, and preferences of the people to be served. This survey attempts to discover some of this information. The geographical area covered in this survey, the people included, and the facts discovered could, conceivably, be duplicated in thousands of similar areas in our country.

VII. Conclusions

From an analysis of the data obtained during the course of the survey herein reported, the following are some of the conclusions which seem warranted regarding the educational background and interests of the adult deaf of Franklin County, Ohio:

1. There were more than three hundred deaf adults in Franklin County, Ohio, a sufficient number to make practical the consideration of extending to them some of the adult educational advantages now so freely enjoyed by persons with normal hearing.
2. Two thirds of the adult deaf of Franklin County dropped out of school before completing their high school courses. Their ages at the time of leaving school ranged from fifteen to twenty-two years. This indicates that age was a factor influencing withdrawal. The data secured during this study show that the adult deaf realize their educational deficiency in such basic courses as English, arithmetic and civics. Therefore, it is concluded that there exist both a genuine need and a demand for educational opportunities to make up for these and other deficiencies.

3. One hundred and twelve persons interviewed during the course of this survey reported that they had been educated orally, one hundred and one manually, and eighty-seven by the combined method. In their conversation with hearing friends and relatives some reported using speech exclusively, others writing and signs. When talking with deaf friends and relatives, more than 78 per cent reported that they used signs and the manual alphabet exclusively. When in conversation with strangers, almost 60 per cent reported that they used writing exclusively. From these data, the conclusion is inescapable that no one method of communication with the deaf is adequate to meet their actual needs.
4. It has been disclosed that a significantly greater proportion of the adult deaf than of the hearing are unemployed. It was also a conclusion of the Eichholz study that vocational training resulted in a higher percentage of employment among the deaf of England and Wales. Contemporarily the thought is developing in our own country that industrial arts education has not achieved its purpose of developing workers capable of rapid adjustment to employment opportunities. The data gathered in this survey show that industrial arts education did not succeed in preparing the adult deaf for vocational success. A study of the nature of the employment of the adult deaf of Franklin County shows that a large proportion were in the ranks of common labor. It is therefore concluded that the vocational training of the adult deaf has been inadequate and that a study of the vocational adjustments of the deaf is needed in order that a more realistic approach can be made to the problem of providing vocational education commensurate with the interests, abilities and needs of the deaf.
5. It is further concluded from the data that there exists a need for an agency to make special provision for the vocational re-education of the deaf when industrial innovations and dislocations make employment readjustments necessary.

6. The adult deaf of Franklin County had a positive interest in further educational opportunities. Their interests were found to lean toward academic, homemaking, vocational and recreational courses. The number voicing interest in the various academic courses, the homemaking courses and the vocational courses, indicated that classes arranged in some of these fields would have a fair chance of enrolling sufficient students to make them successful.
7. The data of this survey clearly indicate that such adult classes should be taught by deaf men teachers, and that, when consistent, by means of signs and the manual alphabet in order to meet the preferences of the prospective students in these respects.
8. The small number and variety of the recreational interests reported by the persons interviewed showed a need for educational effort to extend the social and recreational horizons of the adult deaf.
9. The deaf attend church to a modified extent although 284 of the 301 in this study reported religious affiliation. It is indicated that further research is needed to establish the reason for this and that further effort should be made to induce the adult deaf to greater Christian endeavor.

Our Roll of Honor

I. S. F.

THE ANNALS is proud to present a continuation of its Roll of Honor, of names of instructors and other staff members of schools for the deaf, or sons and daughters or husbands of such members, who have entered the military forces of the United States and Canada. The names here listed are to be added to those in previously published lists in the ANNALS.

BENSON, ELIZABETH, Women's Army Corps, U. S. Army (Gallaudet College).

CASEY, LUCILE, Women's Naval Reserve, U. S. Navy (Georgia School).

DAVIES, GEORGE H., JR., U. S. Army (son of George H. Davies, Oklahoma School).

FEDORCHAK, JOHN F., Pharmacist First Mate, U. S. Navy (New Jersey School).

FORD, JOHN, U. S. Army (Pennsylvania School).

GRAINGER, ———, Pfc., U. S. Army (husband of Mrs. Nevelyn W. Grainger, Virginia School).

HARLAN, EUGENE, Sergeant, U. S. Army (son of Mrs. W. E. Harlan, Mississippi School).

HIGHNOTE, ARTHUR D., Staff Sergeant, U. S. Army (husband of Mrs. Emmalee J. Highnote, Georgia School).

HOPPER, CLAY, U. S. Navy (Georgia School).

HOXIE, JAMES, U. S. Navy (son of Clifford Hoxie, California School).

KEHM, LYLE W., Ensign, Coast Guard, U. S. Navy (husband of Mrs. Jessie B. Kehm, Kendall School).

LINTNER, EMILY, Women's Army Corps, U. S. Army (California School).

MITCHELL, NEWTON T., First Lieutenant, Medical Corps, U. S. Army (husband of Mrs. Peggy Mitchell, Texas School).

MOORE, LELA H., Women's Naval Reserve, U. S. Navy (Virginia School).

MOORE, OWEN P., First Sergeant, Anti-Aircraft Artillery, U. S. Army (husband of Mrs. Georgia T. Moore, American School).

MYERS, SYLVAN T., U. S. Army (husband of Mrs. Thelma Morris Myers, Louisiana School).

RICHARDSON, CHARLES, U. S. Army (son of Mrs. Dorothy C. Richardson, California School).

RICHERSON, ———, U. S. Army (husband of Mrs. L. L. Richerson, Mississippi School).

SCHUNHOFF, HUGO F., U. S. Army (Texas School).

SKAGGS, HELEN L., Women's Naval Reserve, U. S. Navy (Maryland School).

THOMPSON, LEAH, Women's Army Corps., U. S. Army (Oklahoma School).

TRIEBERT, RAYMOND, Lieutenant, Quartermaster Corps, U. S. Army (Indiana School).

WELLING, DAVID M., Ensign, U. S. Navy (Utah School).

WEYERMAN, RUTH, Women's Naval Reserve, U. S. Navy (daughter of Charles Weyerman, Texas School).

WILSON, CELIA, Women's Army Corps, U. S. Army (Minnesota School.

WOODSON, CLARABELLE, Women's Army Corps, U. S. Army (Oklahoma School).

ZIMMERMAN, ISAIAH H., Second Lieutenant, Field Artillery, U. S. Army (son of Mrs. Violet Zimmerman, Kendall School).

A goodly number of former pupils in schools for the deaf have also found their way into the Armed Services. Charles Smith, formerly enrolled in the North Carolina School, is now reported in the Coast Artillery, U. S. Army. Raymond Strickland, previously a pupil in the American School at Hartford, is in the U. S. Army. Four former pupils of the Pennsylvania School, Frederick Brooks, Oliver Calipo, Phillip Smith and Andrew Tutino are serving in the U. S. Army. Bert Clee, previously reported as in the Army Tank Corps, is also a former pupil of the Pennsylvania School, but he has been released from service after several months of training. Charles O'Connor, who now holds the rank of staff sergeant as a gunner in the U. S. Army Air Forces, is a graduate of the Class of 1938 of the California School and after that a student at the Minnesota School for one year. Three other former pupils of the Minnesota School should

be mentioned: Herman Ahearn, in the U. S. Army; Donald Ellsworth, in the U. S. Navy; and James P. Thomas, a private in the U. S. Army. Two young men formerly enrolled in the Maryland School are also reported as in the military service, Joseph Krebs in the U. S. Army and Robert Everhart in the U. S. Marine Corps.

An Associated Press Wirephoto of great interest to the deaf was given wide circulation during the summer. It depicted a scene in the christening of a naval vessel by a deaf lady, and as it appeared in the Washington *Evening Star*, July 1, 1943, carried this impressive caption:

HOUSTON, TEX.—SHIP CHRISTENED IN SIGN LANGUAGE—With the sign of the cross, Mrs. G. E. Rhodes of Walhalla, S.C., a deaf-mute, indicates the words "I christen thee" at the launching of the U.S.S. *Rhodes*, a destroyer escort, at the Brown Shipbuilding Co. here. Lt. Comdr. G. C. Hotchkiss holds the champagne bottle while Mrs. Rhodes gives the ship the name of her son, Lt. (j.g.) Allison P. Rhodes, who died in the attack on the Solomons.

A report announced as issued by the Ship Naming Committee of the U. S. Maritime Commission has it that one of the Liberty ships launched from the yards of the California Shipbuilding Co. will be named Thomas H. Gallaudet, to honor the founder of the first permanent school for the deaf in America.

Certification

I. S. F.

IT IS encouraging to note that despite present difficulties those schools for the deaf which have established certification requirements for teaching positions have not abandoned the standards thus set up. There is further a continuing interest on the part of teachers themselves to obtain certificates. This amounts to a wholesome professional practice, for by it there is assurance that the teaching quality in schools for the deaf will remain at a high level.

For the benefit of teachers who have recently entered the work, it should be said the certificates now granted, by approval of the Conference of Executives of American Schools for the Deaf, comprise three grades, A, B and C, respectively, in Academic, Vocational and Special fields, the principal point of distinction being the academic preparation of an applicant. Thus, the requirement for the Class A certificate is completion of a four-year course in an accredited institution of collegiate rank, for Class B it is two years of accredited college study, and for Class C at least the high school diploma. For the vocational certificates special vocational training and experience are accepted as equivalents of academic credits. In addition to these requirements, each applicant must have had a certain amount of study in psychology or pedagogy, a year of special training to teach the deaf in an accredited training center and, finally, satisfactory teaching experience.

By a previous arrangement all certifying activities of the American Association to Promote the Teaching of Speech to the Deaf have been taken over by the Conference. More recently the Association has completed plans by which its file of records with respect to certification is made available for use by the Conference. By the plan of transfer, teachers who had previously registered with the Association may now apply for certification under the Conference plan at a special fee of $3.00 instead of the customary fee which is $5.00.

Application for certification should be made to Prof.

Irving S. Fusfeld, Gallaudet College, Washington 2, D.C. On request, the necessary form for submitting application will be forwarded to any candidate.

Thus far 1,289 applications have been received and acted upon, this number including the following names not announced in any of the lists already published.

Earl Lafayette Bell, Arkansas School
John James Blindt, Texas School
Iva Marie Boggs, Indiana School
Robert E. Brown, Kansas School
Helene Royston Callicotte, New Jersey School
Mary Ellen Coats, Vancouver, Wash.
Emma Sandberg Cunningham, Northern New York School
Winnifred Cavell Cory, Saskatchewan School
Charles Gothilf Doering, Arizona School
Pearl Gibbons, Texas School
Nicolai A. Hansen, New Jersey School
John Potterton Harms, New Jersey School
Virginia E. Henson, Texas Institute for Colored Youths
Doris Elizabeth Huff, Washington School
Catherine T. McDermott, Rockaway Park, N.Y.
Florence Margaret Kennedy, Indiana School
Elvena Miller, Seattle School
Thelma M. Myers, Louisiana School
Susan Lewis Perry, Western Pennsylvania School
Josephine Prall, New Jersey School
Ada Rankin, Northern New York School
Godfrey Reilly, Jamaica, N.Y.
Amy May Rice, Tulsa Public Schools, Oklahoma
Ruth Tyler Summerville, Indiana School
Alexander Olen Tate, Alabama School
Sister M. Blanche Twigg, St. Francis Xavier's School
Thomas Alfred Ulmer, Oregon School
Nell Margaret Van Orsdall, Louisiana School
Gertrude Smith Ward, Mystic Oral School

Miscellaneous

I. S. F.

Honorary Degrees for Educators of the Deaf.—At the Seventy-Ninth Commencement Exercises of Gallaudet College, May 29, 1943, honorary degrees were conferred upon two noted educators of the deaf: Superintendent Elwood A. Stevenson of the California School, the degree of Doctor of Letters; Dr. Ignatius Bjorlee, superintendent of the Maryland State School, the degree of Doctor of Humane Letters.

Conferring degrees, Dr. Percival Hall, president of the college, made these citations:

ELWOOD A. STEVENSON: Devoted son of deaf parents, life-long worker for the deaf, successful educator and leader in thinking and writing on the education of the deaf.

IGNATIUS BJORLEE: Distinguished leader in educational organizations for the deaf and in causes supporting the rights and betterment of deaf citizens; notable author and authority in the field of educating deaf children.

Mr. Berg's Reminiscences.—In an attractive brochure of 64 pages, privately printed at the North Dakota School for the Deaf, Mr. Albert Berg, M.A., now retired after many years of service as teacher of the deaf, relates of his experiences in his work, under the heading "From My Reliquary of Memories and Random Thoughts on Education of the Deaf." It makes enticing reading, enriched with a wholesome philosophy that comes only from work well done. Brief as it is, it is replete with many a gem of practice as applied to teaching the deaf, and for background it would do well as required reading in training classes for teachers of the deaf.

We cannot resist the temptation of quoting one of the anecdotes of the booklet:

One morning, standing in the hall near my schoolroom door awaiting the class to report for the day's work, I noticed that one of the girls in the line was depressed and tearful. I drew her aside and asked sympathetically what the trouble was. She told of having sent her brother a picture-book for Christmas and "now he is dead." Then she showed me the letter in which her mother wrote, "Your little brother was tickled to death upon receiving the gift you sent him." After the matter was explained to her, the change in her from grief to happiness was touching and it gladdened my heart to see how much she was relieved.

A Guide to Free School Films.—Any school program that

makes use of visual-aid instruction will find real value in the third annual and revised edition of "Educators Guide to Free Films," compiled and prepared by Mary Foley Horkheimer and John W. Diffor, and issued by Educators Progress League, Randolph, Wisconsin. This is an excellently annotated handbook listing alphabetically by title index and again by source index over 2,000 films, both silent and sound, 16 mm. and 35 mm., as well as a number of slidefilms. The general subjects fall within such headings as Wartime Education, Applied Arts, Fine Arts, Health Education, Reading and Literature, Science, and Social Studies. Each film is described in a short paragraph to give the general nature of its contents, the running time, conditions for its loan to a school, who pays transportation costs, and the source from which it may be obtained.

We are not certain as to the cost of this manual, but the edition for 1942 was priced at $3.00.

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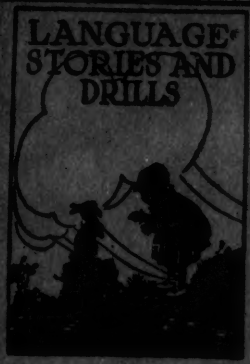

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